

Service Manual



ORDER NO.
RRV1673

STEREO CD CASSETTE DECK RECEIVER XR-P2000

● Refer to the service manual RRV1471 for XR-P160/NVXK.

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Type	Model	Power Requirement	Remarks
	XR-P2000		
NVXK	O	AC230V	
MYXK	O	AC220-230V	

CONTRAST OF MISCELLANEOUS PARTS

NOTES : ● Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.

- The Δ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.

XR-P2000/NVXK, MYXK and XR-P160/NVXK have the same construction except for the following:

Mark	Symbol & Description	Part No.			Remarks
		XR-P160/NVXK	XR-P2000/NVXK	XR-P2000/MYXK	
Δ	FL Window	AAK7252	AAK7319	AAK7319	
	AC Power Cord	ADG1148	ADG1148	ADG1138	
	Fuse(T5A) (For AC Power Cord)	AEK1046	AEK1046	Not used	
	Spacer	AHB7013	AHB7013	Not used	
	Packing Case	AHD7244	AHD7371	AHD7372	
	Rear Panel	ANC7328	ANC7497	ANC7498	
	Operating Instructions(German/Italian)	Not used	Not used	ARC7094	
	Operating Instructions(French/Dutch)	Not used	Not used	ARC7095	
	Operating Instructions (French/Swedish/Spanish/Portuguese)	Not used	Not used	ARC7096	
	Speaker Specification Table	ARX7012	Not used	Not used	

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Service Manual

PIONEER
The Art of Entertainment



ORDER NO.
RRV1471

STEREO CD CASSETE DECK RECEIVER

XR-P160

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Type	Model	Power Requirement	The voltage can be converted by the following method.
	XR-P160		
NVXK	○	AC230V	_____
MYIXK	○	AC220-230V	_____
MYXK/EA	○	AC220-230V	_____
MYXK/EB	○	AC220-230V	_____
DD	○	AC110-127V/220-230V/240V	With the voltage selector

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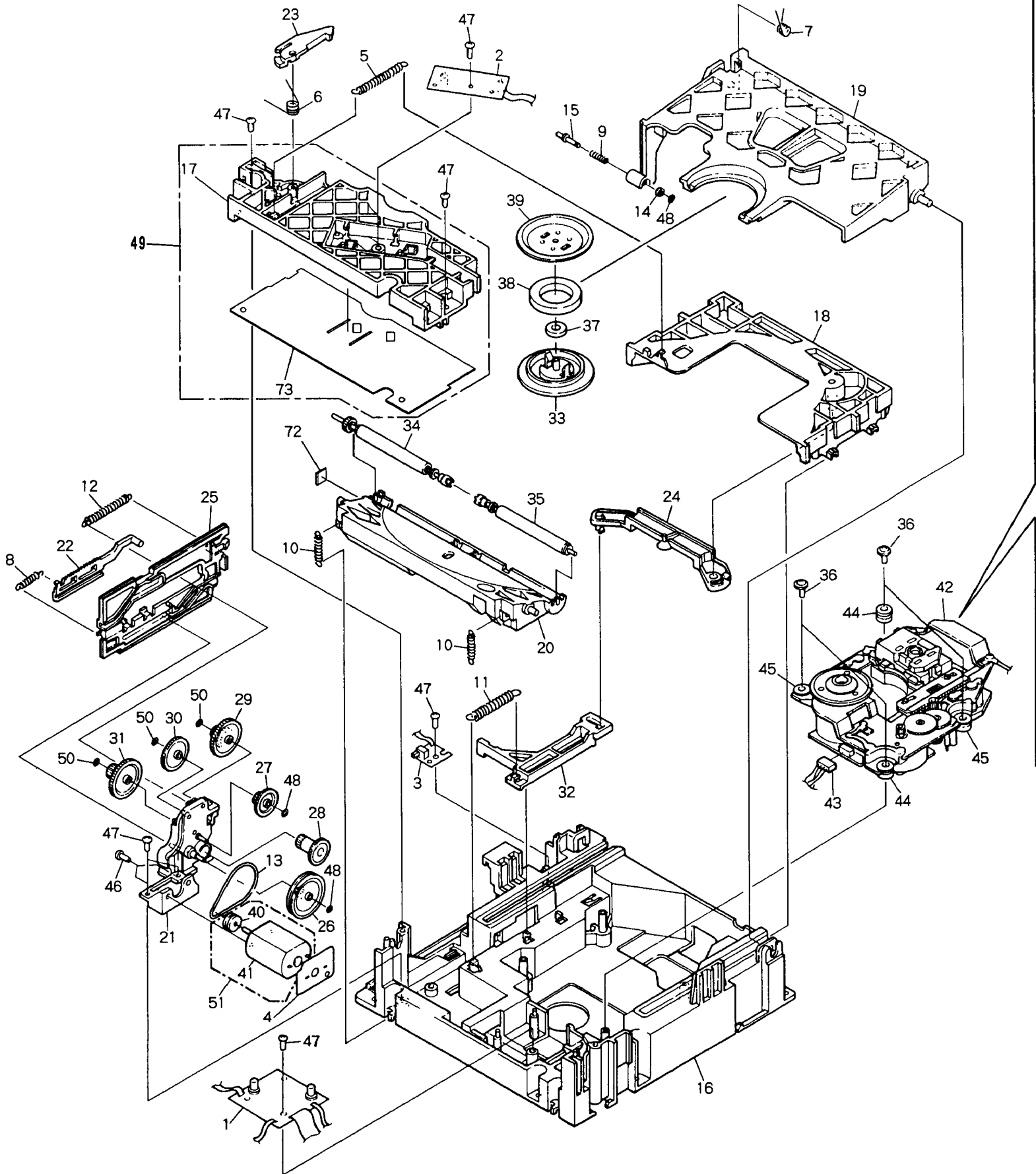
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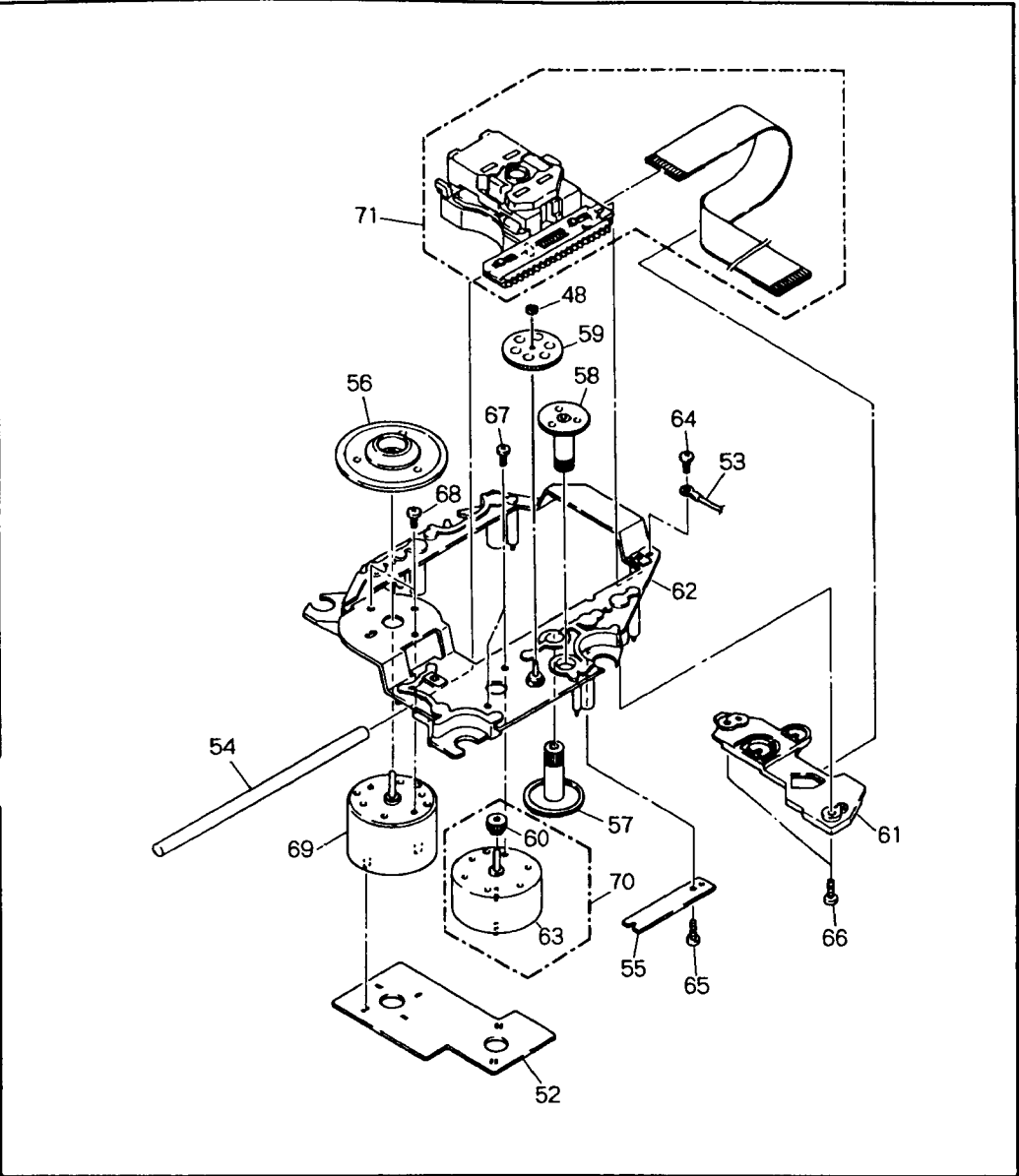
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2.4 CD SLOT-IN MECHANISM

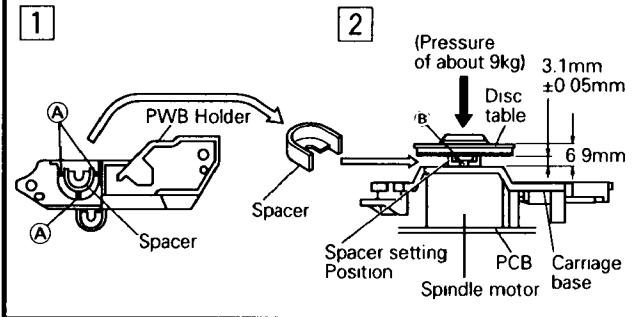
Mark	No.	Description	Parts No.	Mark	No.	Description	Parts No.
NSP	1	SENSOR BOARD ASSY	AWZ7328		51	MOTOR ASSY	AEA7000
NSP	2	LED BOARD ASSY	AWZ7329		52	MECHANISM BOARD ASSY	PWX1192
NSP	3	SW BOARD ASSY	AWZ7330		53	GROUND LEAD UNIT	PDF1104
NSP	4	MOTOR BOARD ASSY	AWZ7331		54	GUIDE BAR	PLA1094
	5	SPRING	ABH7035	NSP	55	GEAR STOPPER	PNB1303
	6	ROCK LEVER SPRING	ABH7019		56	DISC TABLE	PNW1608
	7	CLAMP SPRING	ABH7020		57	GEAR 1	PNW2052
	8	RACK SPRING	ABH7021		58	GEAR 2	PNW2053
	9	P SPRING	ABH7022		59	GEAR 3	PNW2054
	10	ROLLER HOLDER SPRING	ABH7023		60	PINION GEAR	PNW2055
	11	SPRING B	ABH7024		61	PWB HOLDER	PNW2057
	12	CAM PLATE SPRING	ABH7025		62	CARRIAGE BASE	PNW2445
	13	BELT A	AEB7012	NSP	63	DC MOTOR (CARRIAGE)	PXM1027
	14	WASHER	AEB7018		64	SCREW	BBZ26P060FMC
	15	PIN	ALA7005		65	SCREW	BPZ20P060FMC
	16	MECHANISM BASE	ANW7022		66	SCREW	BPZ26P100FMC
	17	DISC PLATE	ANW7023		67	SCREW	JFZ17P025FZK
	18	CENTERING PLATE	ANW7024		68	SCREW	JFZ20P030FNI
	19	CLAMPER HOLDER	ANW7025		69	DC MOTOR ASSY (SPINDLE)	PEA1235
	20	ROLLER HOLDER	ANW7078		70	DC MOTOR ASSY (CARRIAGE)	PEA1246
	21	GEAR HOLDER	ANW7027		71	PICKUP ASSY	PEA1291
	22	RACK	ANW7028		72	AV SHEET	AEB7021
	23	ROCK LEVER	ANW7029	NSP	73	DISC PLATE SHEET	AEB7035
	24	STARTING LEVER	ANW7030				
	25	CAM PLATE	ANW7031	OTHERS		OIL (GREEN)	GEM1015
	26	GEAR PULLEY	ANW7032				
	27	GEAR A	ANW7033				
	28	GEAR B	ANW7034				
	29	GEAR C	ANW7035				
	30	GEAR D	ANW7036				
	31	DRIVE GEAR	ANW7037				
	32	STARTING PLATE	ANW7038				
	33	CLAMPER	ANW7044				
	34	ROLLER ASSY L	AXA7019				
	35	ROLLER ASSY R	AXA7020				
	36	SCREW	PBA1048				
NSP	37	H SPACER	PEB1249				
	38	CLAMP MAGNET	PMF1014				
	39	YOKE	PNB1216				
	40	MOTOR PULLEY	PNW1634				
NSP	41	MOTOR	PXM1002				
NSP	42	SERVO MECHANISM ASSY SL	AXA7017				
	43	CONNECTOR ASSY 2P (2mm PITCH)	PDE1238				
	44	FLOAT RUBBER	PEB1014				
	45	FLOAT RUBBER	PEB1132				
	46	SCREW	BMZ20P040FMC				
	47	SCREW	PPZ30P060FMC				
	48	WASHER	WT12D032D025				
	49	DISC PLATE ASSY	AEA7003				
	50	WASHER	WT17D034D025				



Servo Mechanism Assy SL



- How to install the disc table
- ① Use nipper or other tool to cut the three sections marked ㉑ figure ①. Then remove the spacer.
- ② While supporting the spindle motor shaft with the stopper, put spacer on top of the motor base (angled so it doesn't touch section ㉑), and stick the disc table on top (takes about 9kg pressure). Take off the spacer.



2.5 MECHANISM UNIT

■ Mechanism unit I and II (1/2)

Mark	No.	Description	Parts No.
NSP	1	ASSY MOTOR	RXM1080
	2	JUMPER WIRE	RDD1012
	3	BRACKET MOTOR	RNE1830
	4	SPACER	RNK1822
	5	SCREW	RBA1100
	6	SCREW	PCZ20P040FMC

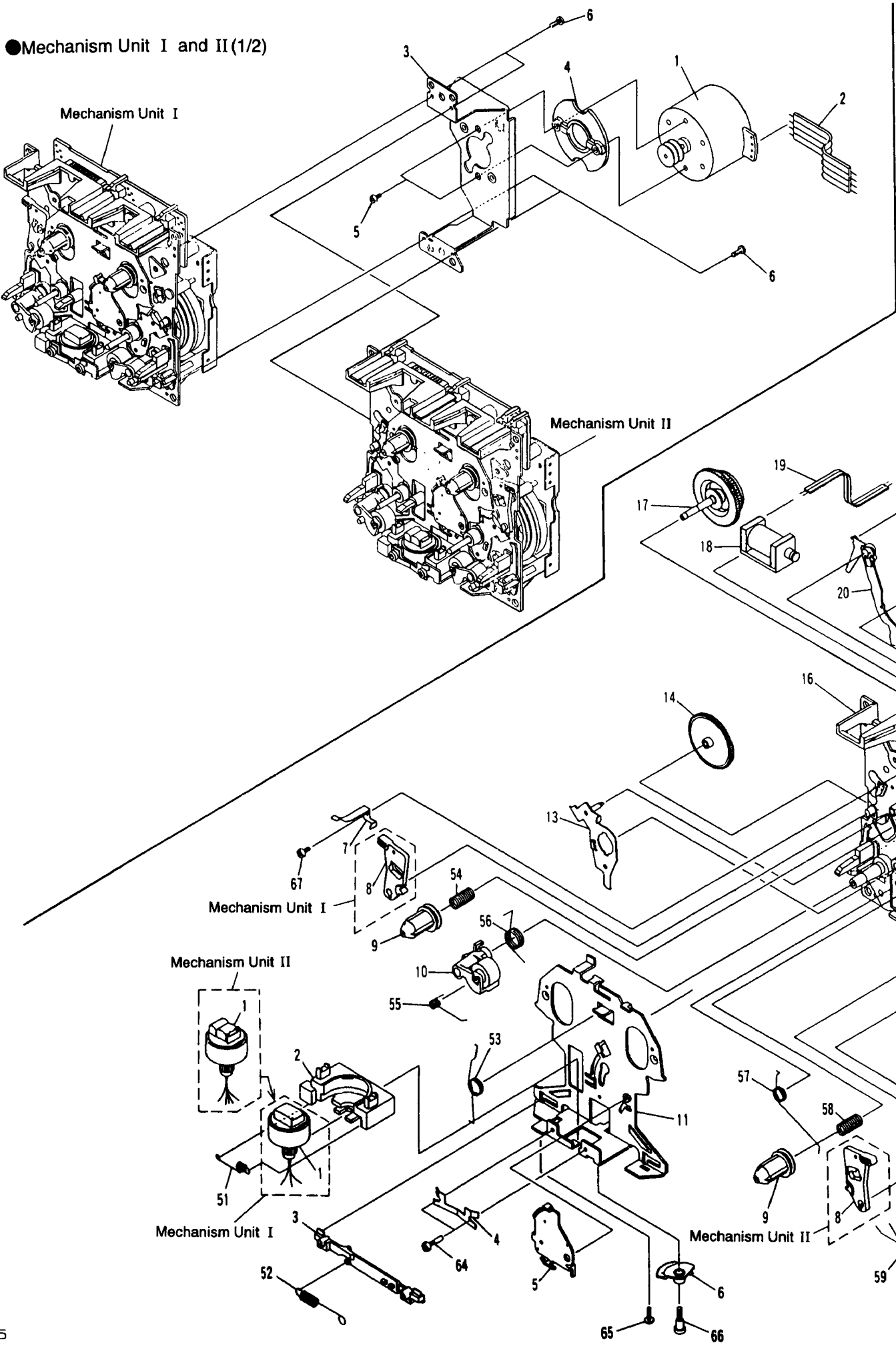
■ Mechanism unit I and II (2/2)

Mark	No.	Description	Parts No.
	1	ASSY HOLDER HEAD (*1)	RXA1400
	1	ASSY HOLDER HEAD (*2)	RXA1664
	2	FRAME HEAD	RNK1715
	3	LEVER HEAD	RNK1716
	4	SPRING AZIMUTH	RBK1006
	5	ASSY ARM ASSIST	RXA1401
	6	GEAR ARM HEAD	RNK1717
	7	SPRING CASSETTE	RBK1039
	8	EJECT LOCK	RNK1718
	9	CAP REEL	RNK1719
	10	ASSY PINCH ARM L	RXA1403
	11	CHASSIS HEAD	RNE1437
	12	ASSY PINCH ARM R	RXA1404
	13	ARM PLAY L	RNK1866
	14	GEAR PLAY	RNK1867
	15	ARM PLAY R	RNK1868
	16	CHASSIS OS	RXA1411
	17	ASSY SUB REEL L	RXA1407
	18	SOLENOID	RXP1020
	19	WIRE	RDC1006
	20	ARM RVS	RNK1721
	21	GEAR FF	RNK1723
	22	ASSY ARM FR	RXA1412
	23	ASSY PULLEY FR	RXA1413
	24	BELT FR	REB1292
	25	METAL	RNG1048
	26	ASSY FLYWHEEL L	RXA1690
	27	METAL	RNG1005
	28	ARM BRAKE	RNK1724
	29	ASSY SUB REEL R	RXA1408
	30	ARM TRIGER	RNK1722
	31	GEAR CAM	RNK1725
	32	METAL	RNG1049
	33	ASSY FLYWHEEL R	RXA1691
	34	METAL	RNG1004
	35		
	36		
	37	P. C. BOARD	RNP1610
	38	SWITCH MODE	RSN1020
	39	SWITCH (LEAF)	RSN1019
	40	HALL IC	DN6851A

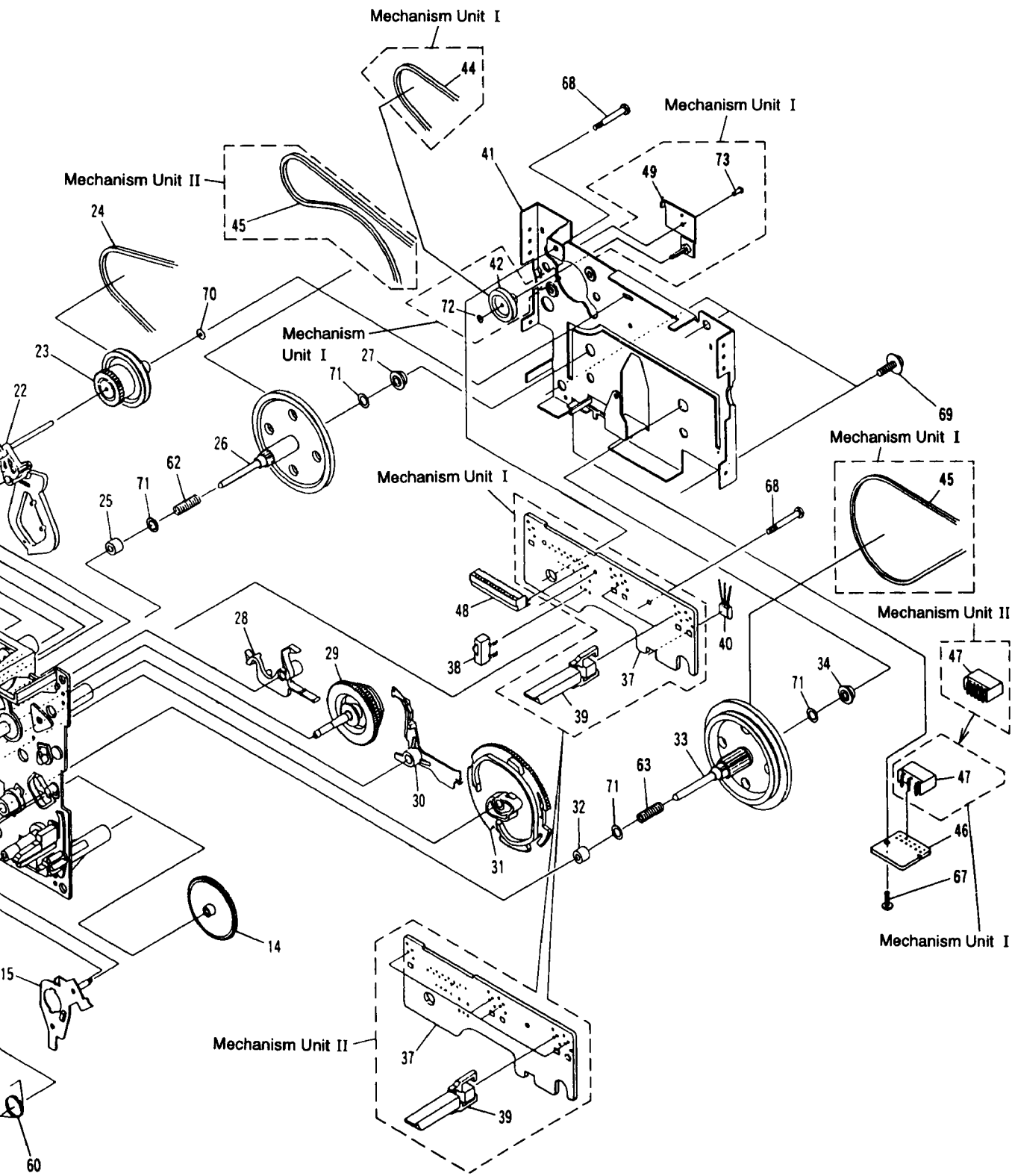
Note) *1: Mechanism Unit I
*2: Mechanism Unit II

Mark	No.	Description	Parts No.
	41	BRACKET FW (*1)	RNE1854
	41	BRACKET FW (*2)	RNE1438
	42	PULLEY (*1 only)	RNK2132
	43		
	44	BELT FW (*1 only)	REB1291
	45	BELT MAIN (* 1)	REB1290
	45	BELT MAIN (* 2)	REB1289
	46	P. C. BOARD	RNP1348
	47	HOUSING (*1)	RKP1396
	47	HOUSING (*2)	RKP1397
	48	CONNECTOR (*1)	RKP1713
	48	CONNECTOR (*2)	RKP1714
	49	ASSY HOLDER (*1 only)	RXA1689
	50		
	51	SPRING	RBH1282
	52	SPRING	RBH1283
	53	SPRING	RBH1284
	54	SPRING	RBH1286
	55	SPRING	RBH1288
	56	SPRING	RBH1291
	57	SPRING	RBH1285
	58	SPRING	RBH1287
	59	SPRING	RBH1289
	60	SPRING	RBH1290
	61	SPRING	RBH1292
	62	FWP SP (SPRING)	RBH1061
	63	SPRING	RBH1325
	64	SCREW (For AZIMUTH)	RBA1023
	65	SCREW	RBA1027
	66	SCREW	RBA1030
	67	SCREW	PCZ20P040FMC
	68	SCREW	RBA1093
	69	SCREW	RBA1094
	70	WASHER	RBF1046
	71	WASHER	WA26D047D013
	72	WASHER (*1 only)	WT13D030D025
	73	SCREW (*1 only)	RBA1118

●Mechanism Unit I and II(1/2)

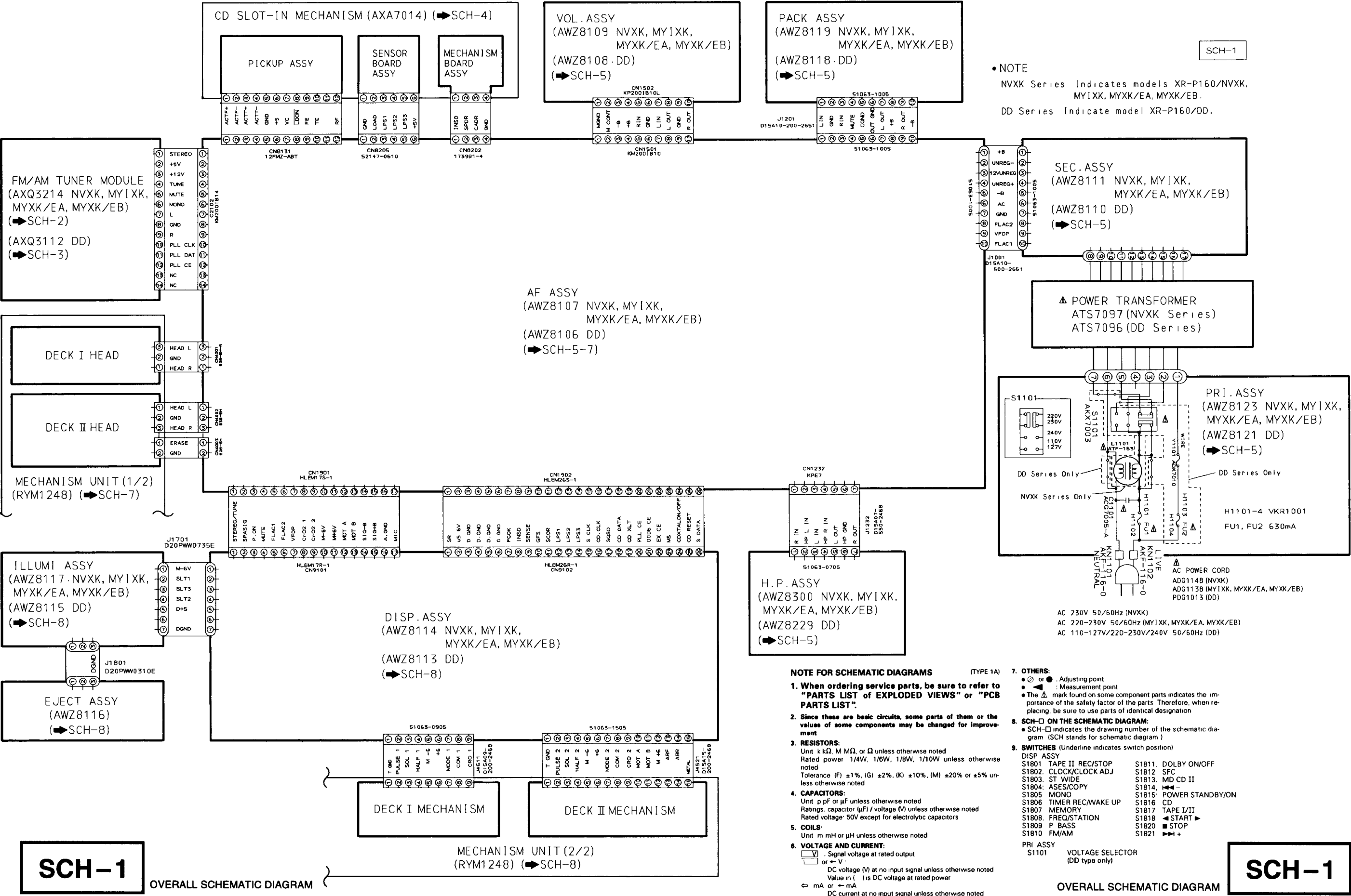


●Mechanism Unit I and II(2/2)



3. SCHEMATIC AND PCB CONNECTION DIAGRAMS

3.1 OVERALL SCHEMATIC DIAGRAM



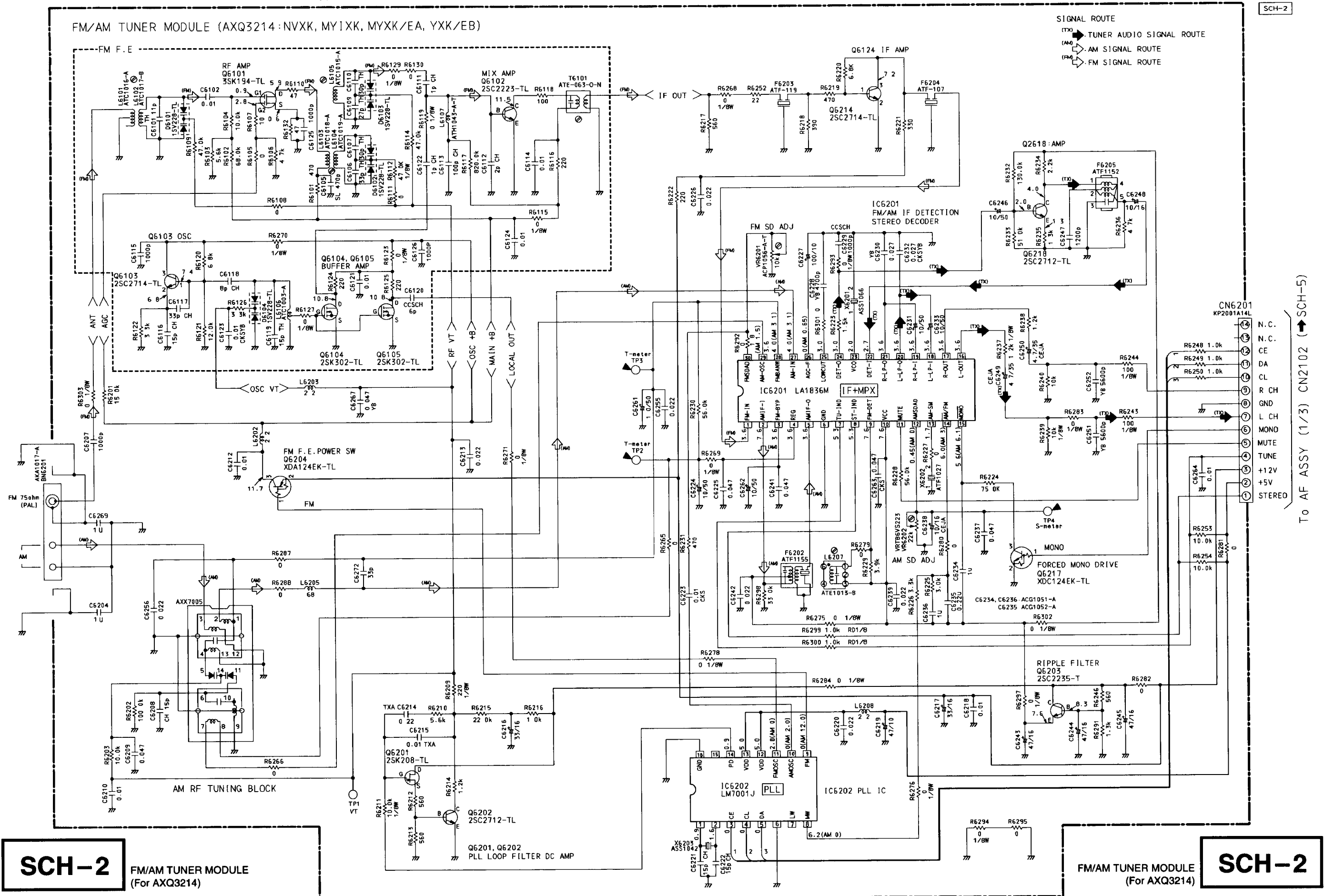
SCH-1

OVERALL SCHEMATIC DIAGRAM

OVERALL SCHEMATIC DIAGRAM

SCH-1

● For NVXK/MYIXK/MYXK/EA and MYXK/EB types (AXQ3214)



1. SAFETY INFORMATION

(FOR EUROPEAN MODEL ONLY)

VARO!

AVATTAESSA JA SUOJALUKITUS
OHITETTAESSA OLET ALTTIINA
NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE.
ÄLÄ KATSO SÄTEESEEN.

ADVERSEL:

USYNLIG LASERSTRÅLING VED ÅBNING
NÅR SIKKERHEDSAFBRYDERE ER UDE AF
FUNKTION UDGÅ UDSÆTTELSE FOR
STRÅLING.

VARNING!

OSYNLIG LASERSTRÅLNING NÅR DENNA
DEL ÄR ÖPPNAD OCH SPÄRREN
ÄR URKOPPLAD. BETRakta EJ STRÅLEN.



LASER
Kuva 1
Lasersäteilyn
varoituserkki

WARNING!

DEVICE INCLUDES LASER DIODE WHICH
EMITS INVISIBLE INFRARED RADIATION
WHICH IS DANGEROUS TO EYES. THERE IS
A WARNING SIGN ACCORDING TO PICTURE
1 INSIDE THE DEVICE CLOSE TO THE LASER
DIODE.



LASER
Picture 1
Warning sign for
laser radiation

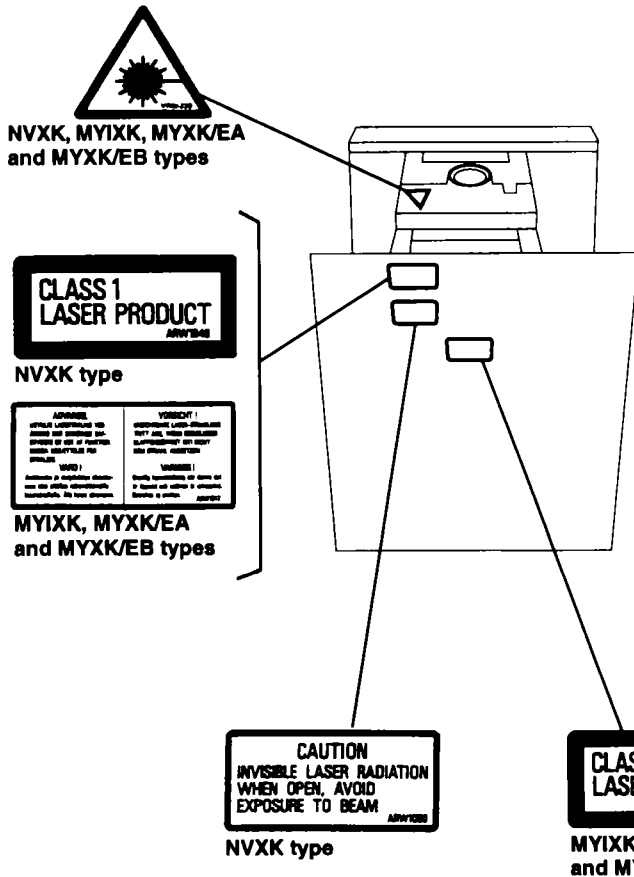
IMPORTANT

THIS PIONEER APPARATUS CONTAINS
LASER OF CLASS 1.
SERVICING OPERATION OF THE APPARATUS
SHOULD BE DONE BY A SPECIALLY
INSTRUCTED PERSON.

LASER DIODE CHARACTERISTICS

MAXIMUM OUTPUT POWER: 5 mw
WAVELENGTH: 780 - 785 nm

LABEL CHECK



Additional Laser Caution

1. Laser Interlock Mechanism

The position of the switch (S651) for detecting loading state is detected by the system microprocessor, and the design prevents laser diode oscillation when the switch (S651) is not on CLMP terminal side (CLMP signal is OFF or high level.) Thus, the interlock will no longer function if the switch (S651) is deliberately set to CLMP terminal side. (low level)

The interlock also does not function in the test mode*.

Laser diode oscillation will continue, if pin 1 of M51593FP (IC101) on the PRE-AMP BOARD ASSY mounted on the pickup assembly is connected to GND, or pin 19 is connected to low level (ON), or else the terminals of Q101 are shorted to each other (fault condition).

2. When the cover is opened, close viewing of the objective lens with the naked eye will cause exposure to a Class 1 laser beam.

* Refer to page 58.

2. EXPLODED VIEWS, PACKING AND PARTS LIST

NOTES :

- Parts marked by " NSP " are generally unavailable because they are not in our Master Spare Parts List.
- The $\perp$ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- Parts marked by " ● " are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.

2.1 PACKING

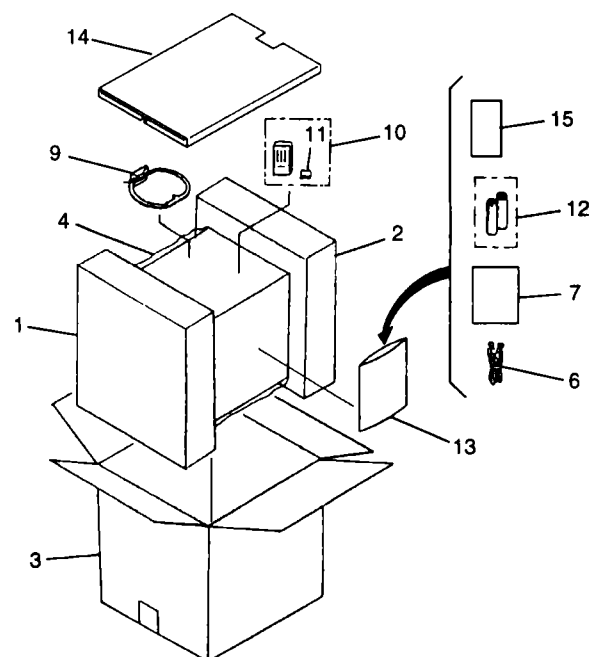
■ Contrast of XR-P160/NVXK, MYIXK, MYXK/EA, MYXK/EB and DD

XR-P160/NVXK, MYIXK, MYXK/EA, MYXK/EB and DD have the same construction except for the following:

Mark	No.	Description	Part No.					Remarks
			NVXK	MYIXK	MYXK/EA	MYXK/EB	DD	
NSP NSP	1	Front pad	AHA7110	AHA7110	AHA7110	AHA7110	AHA7106	
	2	Rear pad	AHA7111	AHA7111	AHA7111	AHA7111	AHA7107	
	3	Packing case	AHD7244	AHD7245	AHD7245	AHD7245	AHD7242	
	4	Packing sheet	AHG7001	AHG7001	AHG7001	AHG7001	AHG7003	
	6	FM antenna assy	ADH1019	ADH1019	ADH1019	ADH1019	Not used	
	6	FM antenna	Not used	Not used	Not used	Not used	ADH1016	
	7	Operating instructions (English)	ARB7062	Not used	Not used	ARB7062	Not used	
	7	Operating instructions (German/Italian)	Not used	ARC7094	ARC7094	Not used	Not used	
	7	Operating instructions (French/Dutch)	Not used	Not used	ARC7095	Not used	Not used	
	7	Operating instructions (French/Swedish/Spanish/Portuguese)	Not used	Not used	Not used	ARC7096	Not used	
	7	Operating instructions (English/Spanish/Chinese)	Not used	Not used	Not used	Not used	ARE7058	
	9	Loop antenna assy	ATB7002	ATB7002	ATB7002	ATB7002	ATB7004	
	12	Battery (R03, AAA)	PEM1004	PEM1004	PEM1004	PEM1004	VEM-022	
	13	Vinyl bag	AHG1091	AHG1091	AHG1091	AHG1091	Not used	
	13	Vinyl bag (0.03 × 230 × 340)	Not used	Not used	Not used	Not used	Z21-038	
	14	Spacer	AHB7013	Not used	Not used	Not used	Not used	
	15	Speaker specification table	ARX7012	ARX7012	ARX7012	ARX7012	Not used	

■ Parts List for XR-P160/NVXK

Mark	No.	Description	Parts No.
	1	FRONT PAD	AHA7110
	2	REAR PAD	AHA7111
	3	PACKING CASE	AHD7244
	4	PACKING SHEET	AHG7001
	5		
	6	FM ANTENNA ASSY	ADH1019
	7	OPERATING INSTRUCTIONS (English)	ARB7062
	8		
	9	LOOP ANTENNA ASSY	ATB7002
	10	REMOTE CONTROL UNIT (CU-XR015)	AXD7030
NSP	11	BATTERY LID	AZA7050
NSP	12	BATTERY (R03, AAA)	PEM1004
NSP	13	VINYL BAG	AHG1091
	14	SPACER	AHB7013
	15	SPEAKER SPECIFICATION TABLE	ARX7012



2.2 EXTERIOR

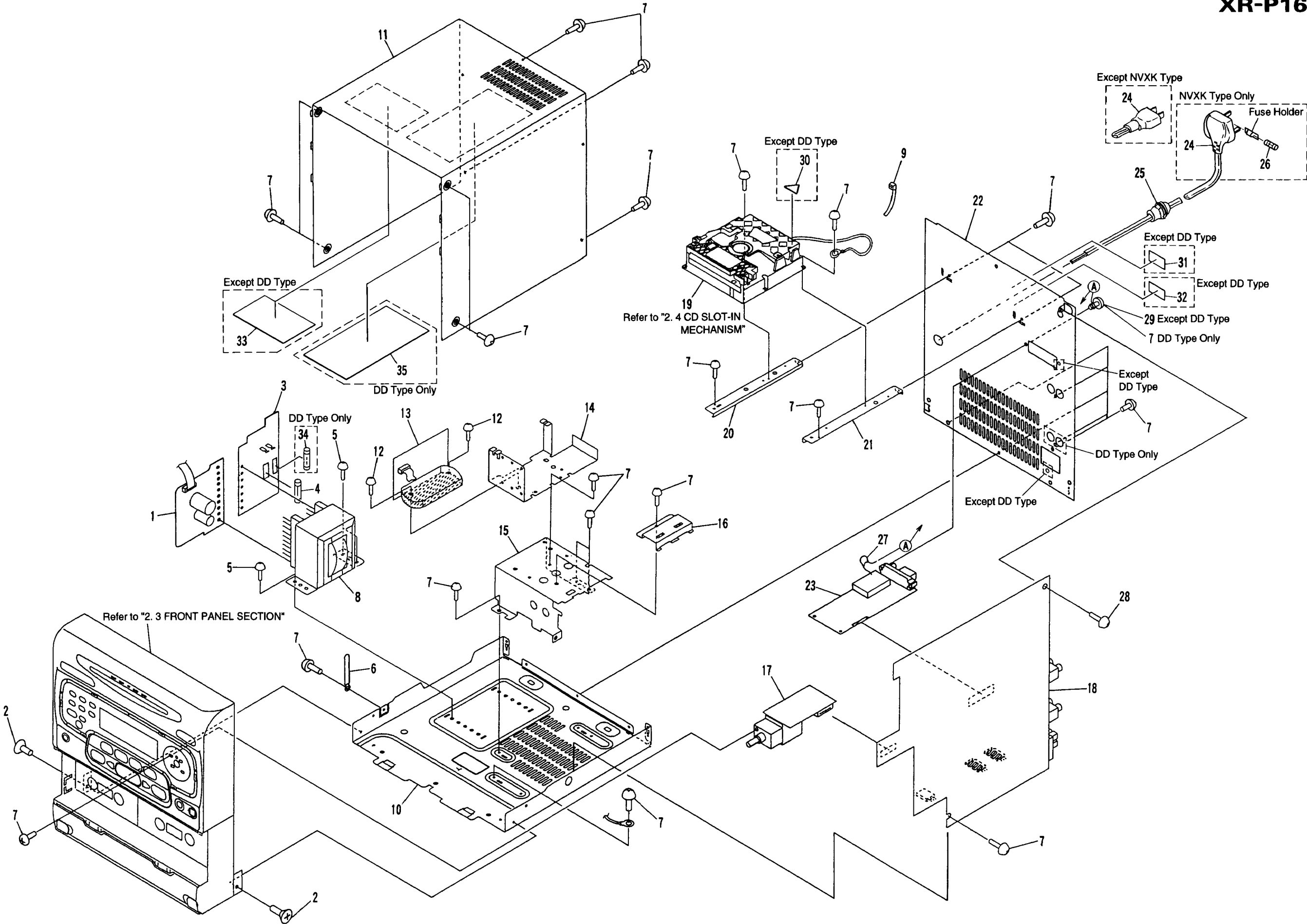
■ Contrast of XR-P160/NVXK, MYIXK, MYXK/EA, MYXK/EB and DD

XR-P160/NVXK, MYIXK, MYXK/EA, MYXK/EB and DD have the same construction except for the following:

Mark	No.	Description	Part No.					Remarks
			NVXK	MYIXK	MYXK/EA	MYXK/EB	DD	
△ △ △	1	SEC. assy	AWZ8111	AWZ8111	AWZ8111	AWZ8111	AWZ8110	
	2	Screw	CBZ30P080FZK	CBZ30P080FZK	CBZ30P080FZK	CBZ30P080FZK	CBZ30P080FMC	
	3	PRI. assy	AWZ8123	AWZ8123	AWZ8123	AWZ8123	AWZ8121	
	8	Power transformer (AC 220–230V, T1)	ATS7097	ATS7097	ATS7097	ATS7097	Not used	
	8	Power transformer (AC 110–127V/220–230V/240V, T1)	Not used	Not used	Not used	Not used	ATS7096	
NSP	10	Chassis	ANA7046	ANA7046	ANA7046	ANA7046	ANA7045	
NSP NSP	11	Bonnet case	AZN7345	AZN7345	AZN7345	AZN7345	AZN7516	
	13	PAC assy	AWZ8119	AWZ8119	AWZ8119	AWZ8119	AWZ8118	
	14	Sub heat sink	ANH7041	ANH7041	ANH7041	ANH7041	ANH7040	
	15	Heat sink	ANH7036	ANH7036	ANH7036	ANH7036	ANH7035	
	16	Transistor holder	ANG7084	ANG7084	ANG7084	ANG7084	ANG7079	
△ △ △	17	VOL. assy	AWZ8109	AWZ8109	AWZ8109	AWZ8109	AWZ8108	
	18	AF assy	AWZ8107	AWZ8107	AWZ8107	AWZ8107	AWZ8106	
	20	CD holder L	ANG7082	ANG7082	ANG7082	ANG7082	ANG7077	
	21	CD holder R	ANG7083	ANG7083	ANG7083	ANG7083	ANG7078	
	22	Rear panel	ANC7328	ANC7329	ANC7329	ANC7329	ANC7327	
NSP NSP	23	FM/AM tuner module	AXQ3214	AXQ3214	AXQ3214	AXQ3214	AXQ3112	
	24	AC power cord	ADG1148	ADG1138	ADG1138	ADG1138	PDG1013	
	26	Fuse (T5A) (For AC power cord)	AEK1046	Not used	Not used	Not used	Not used	
	27	Capacitor (C1)	CKDYB122K50	CKDYB122K50	CKDYB122K50	CKDYB122K50	Not used	
	30	Caution label (G)	VRW-329	VRW-329	VRW-329	VRW-329	Not used	
△ △ △	31	Caution label (F)	ARW1046	ARW1046	ARW1046	ARW1046	Not used	
	32	Caution label	ARW1050	ARW1047	ARW1047	ARW1047	Not used	
	33	Vibration proof plate	AEC7060	AEC7060	AEC7060	AEC7060	Not used	
	34	Fuse (T630mA, FU2)	Not used	Not used	Not used	Not used	REK-098	
	35	Vibration proof plate	Not used	Not used	Not used	Not used	AND7019	

■ Parts List for XR-P160/NVXK

Mark	No.	Description	Parts No.	Mark	No.	Description	Parts No.
△	1	SEC. ASSY	AWZ8111	NSP	17	VOL. ASSY	AWZ8109
	2	SCREW	CBZ30P080FZK		18	AF ASSY	AWZ8107
	3	PRI. ASSY	AWZ8123		19	CD SLOT IN MECHA	AXA7014
	4	FUSE (T630mA, FU1)	REK-098		20	CD HOLDER L	ANG7082
	5	SCREW	ASZ40P060FMC				
NSP	6	CORD STOPPER	DNF1128	△ △	21	CD HOLDER R	ANG7083
NSP	7	SCREW	BBZ30P080FZK		22	REAR PANEL	ANC7328
	8	POWER TRANSFORMER (AC220–230V, T1)	ATS7095		23	FM/AM TUNER MODULE	AXQ3214
	9	BINDER	Z09-056		24	AC POWER CORD	ADG1148
	10	SHASSIS	ANA7046		25	STRAIN RELIEF	CM-22B
NSP NSP	11	BONNET CASE	AZN7345	△ △	26	FUSE (T5A)	AEK1046
	12	SCREW	BBZ30P180FMC		27	CAPACITOR (C1)	CKDYB122K50
	13	PACK ASSY	AWZ8119		28	SCREW	IBZ30P080FMC
	14	SUB HEAT SINK	ANH7041		29	SCREW	ABA-115
	15	HEAT SINK	ANH7036		30	CAUTION LABEL(G)	VRW-329
NSP				NSP	31	CAUTION LABEL(F)	ARW1046
	16	TRANSISTOR HOLDER	ANG7084	NSP	32	CAUTION LABEL	ARW1050
					33	VIBRATION PROOF PLATE	AEC7060



XR-P160

2.3 FRONT PANEL SECTION

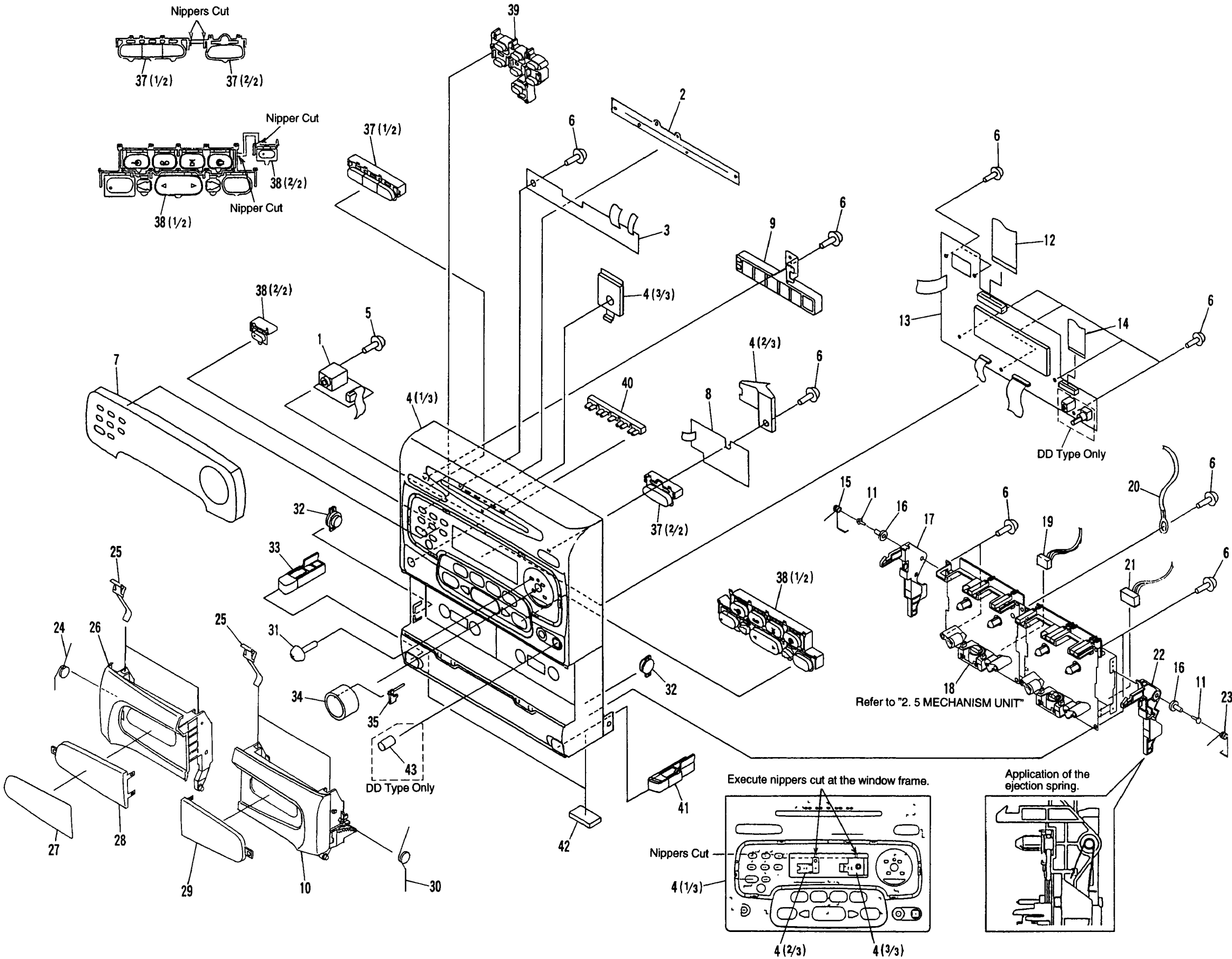
■ Contrast of XR-P160/NVXK, MYIXK, MYXK/EA, MYXK/EB and DD

XR-P160/NVXK, MYIXK, MYXK/EA, MYXK/EB and DD have the same construction except for the following:

Mark	No.	Description	Part No.					Remarks
			NVXK	MYIXK	MYXK/EA	MYXK/EB	DD	
NSP	1	H.P. assy	AWZ8300	AWZ8300	AWZ8300	AWZ8300	AWZ8299	
	3	ILLUMI. assy	AWZ8117	AWZ8117	AWZ8117	AWZ8117	AWZ8115	
	4	Front panel	AZN7342	AZN7342	AZN7342	AZN7342	AZN7341	
	10	Cassette door R	AZN7344	AZN7344	AZN7344	AZN7344	AZN7339	
	13	DISP. assy	AWZ8114	AWZ8114	AWZ8114	AWZ8114	AWZ8113	
	15	Spring L	ABH7028	ABH7028	ABH7028	ABH7028	Not used	
	15	Eject spring L	Not used	Not used	Not used	Not used	RBH1411	
	17	Eject arm L	AMR7024	AMR7024	AMR7024	AMR7024	AMR7020	
	19	Connector assy 3P (J5)	ADX7046	ADX7046	ADX7046	ADX7046	RKP1583	
	21	Connector assy 5P (J4)	ADX7045	ADX7045	ADX7045	ADX7045	RKP1582	
NSP	22	Eject arm R	AMR7025	AMR7025	AMR7025	AMR7025	AMR7021	
	23	Spring R	ABH7029	ABH7029	ABH7029	ABH7029	Not used	
	23	Eject spring R	Not used	Not used	Not used	Not used	RBH1412	
	24	Door spring L	ABH7099	ABH7099	ABH7099	ABH7099	ABH7091	
	26	Cassette door L	AZN7343	AZN7343	AZN7343	AZN7343	AZN7338	
	27	Getter	AAX7280	AAX7281	AAX7280	AAX7280	AAX7279	
NSP	30	Door spring R	ABH7100	ABH7100	ABH7100	ABH7100	ABH7092	
	43	Mic knob	Not used	Not used	Not used	Not used	AAB7052	

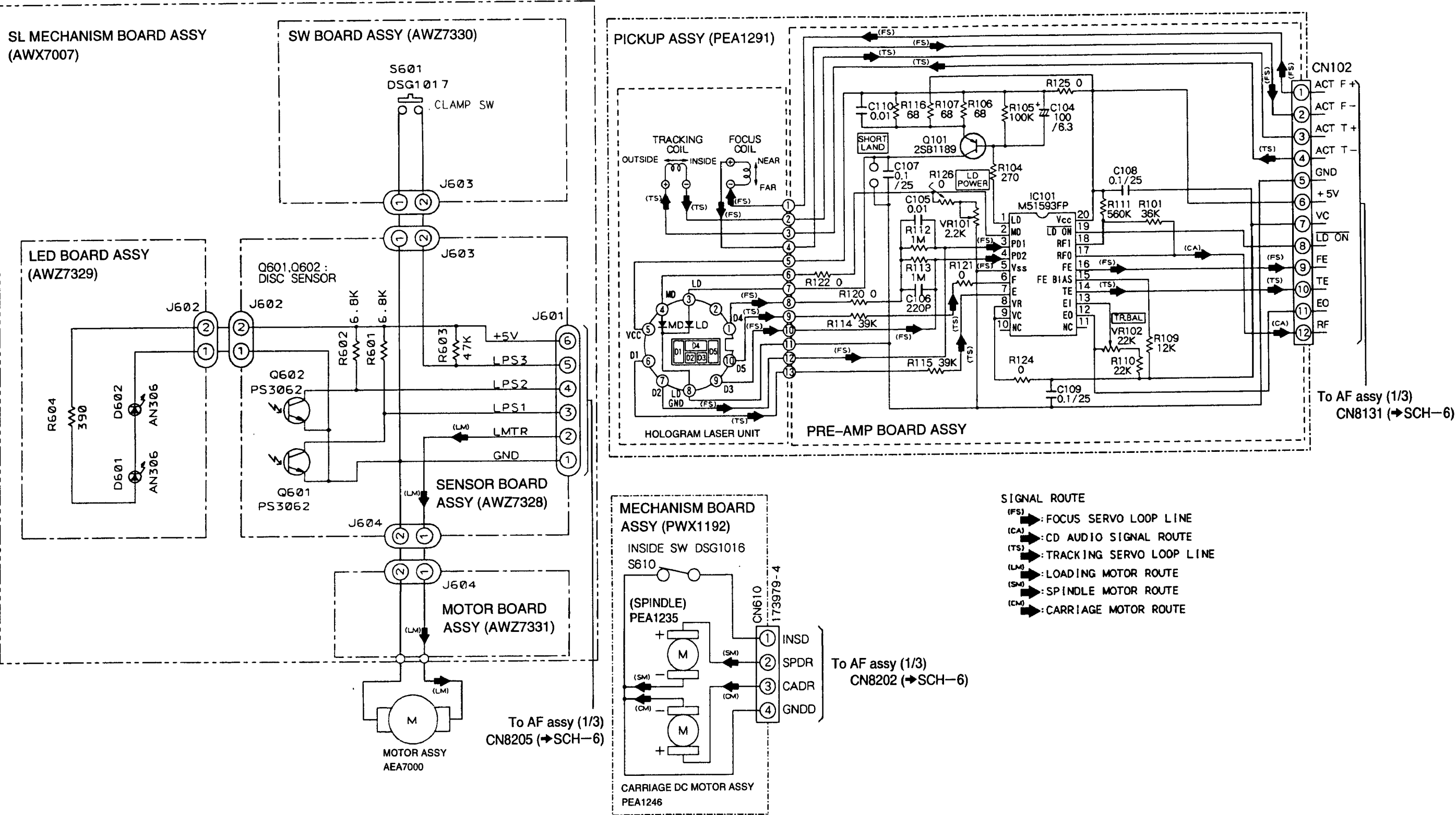
■ Parts List for XR-P160/NVXK

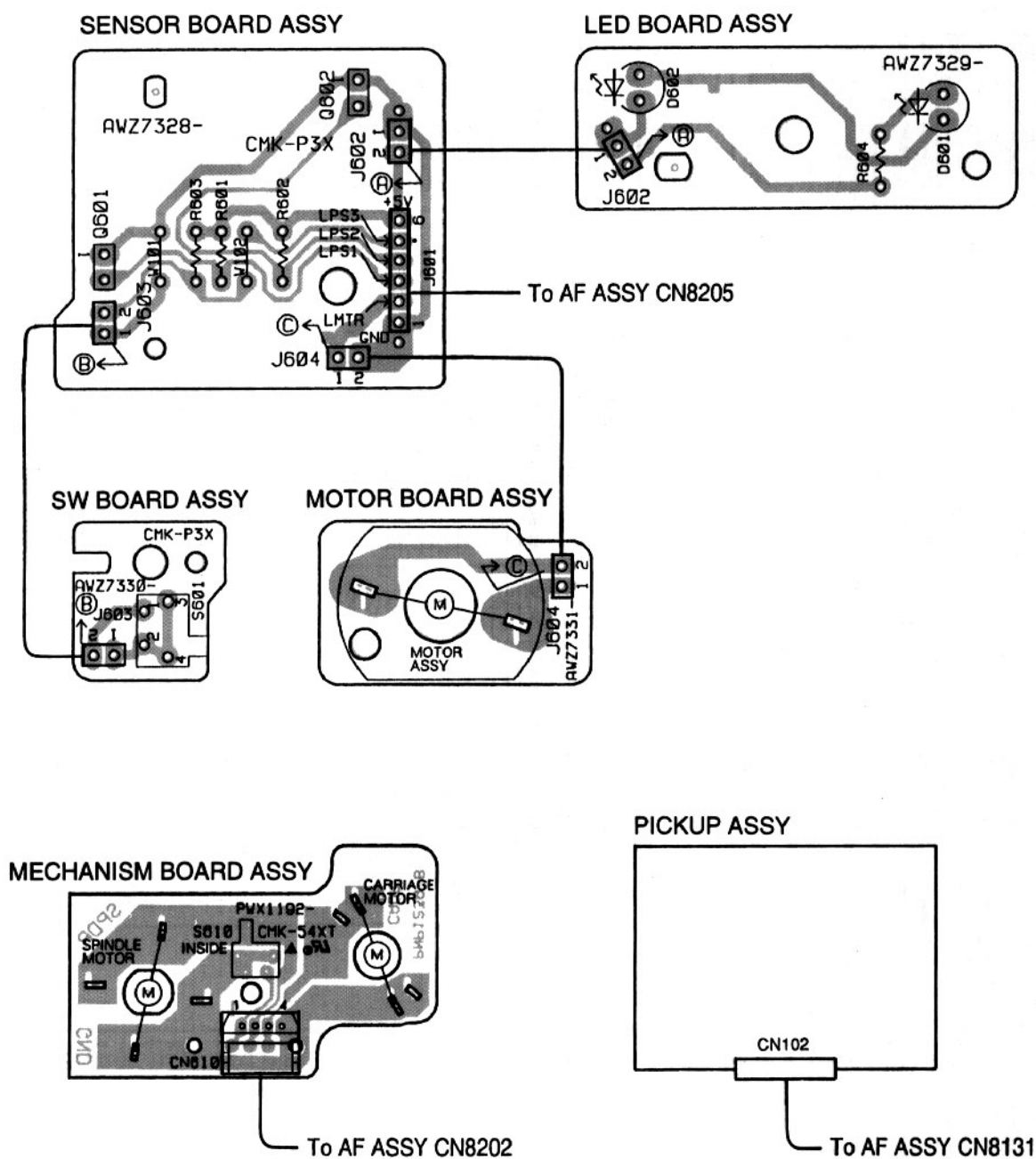
Mark	No.	Description	Parts No.	Mark	No.	Description	Parts No.
NSP	1	H.P. ASSY	AWZ8300	NSP	26	CASSETTE DOOR L	AZN7343
	2	PLATE	AWL7015		27	GETTER	AAX7280
	3	ILLUMI. ASSY	AWZ8117		28	DECK WINDOW L	AAK7223
	4	FRONT PANEL	AZN7342		29	DECK WINDOW R	AAK7224
	5	SCREW	ABA1005		30	DOOR SPRING R	ABH7100
	6	SCREW	BPZ30P080FMC		31	SCREW	BBZ30P080FZK
	7	FL WINDOW	AAK7252		32	DAMPER ASSY	AXA7021
	8	EJECT ASSY	AWZ8116		33	EJECT BUTTON L	AAD7258
	9	MOLD	AMR7109		34	VOL. KNOB	AAB7077
	10	CASSETTE DOOR R	AZN7344		35	COLOR MOLD	AAK7226
	11	SCREW	BSZ20P120FMC		36	-----	
	12	FFC 26P (J2)	ADD7020		37	P. BASS BUTTON	AAD7257
	13	DISP. ASSY	AWZ8114		38	FUNCTION BUTTON	AAD7287
	14	FFC 17P (J1)	ADD7019		39	TIMER BUTTON	AAD7256
	15	SPRING L	ABH7028		40	CD LENS	AAK7225
	16	COLLAR	RNK2135		41	EJECT BUTTON R	AAD7259
	17	EJECT ARM L	AMR7024		42	NON SKID SHEET	AEB1111
	18	MECHANISM UNIT	RVM1248	NSP	21	CONNECTOR ASSY 5P (J4)	ADX7045
	19	CONNECTOR ASSY 3P (J5)	ADX7046		22	EJECT ARM R	AMR7025
	20	WIRE (J3)	DE015VF0		23	SPRING R	ABH7029
	21	CONNECTOR ASSY 5P (J4)	ADX7045		24	DOOR SPRING L	ABH7099
	22	EJECT ARM R	AMR7025		25	SPRING	RBK1004



3.3 LED BOARD ASSY, SW BOARD ASSY, SENSOR BOARD ASSY, MOTOR BOARD ASSY, MECHANISM BOARD ASSY AND PICKUP ASSY

SCH-4



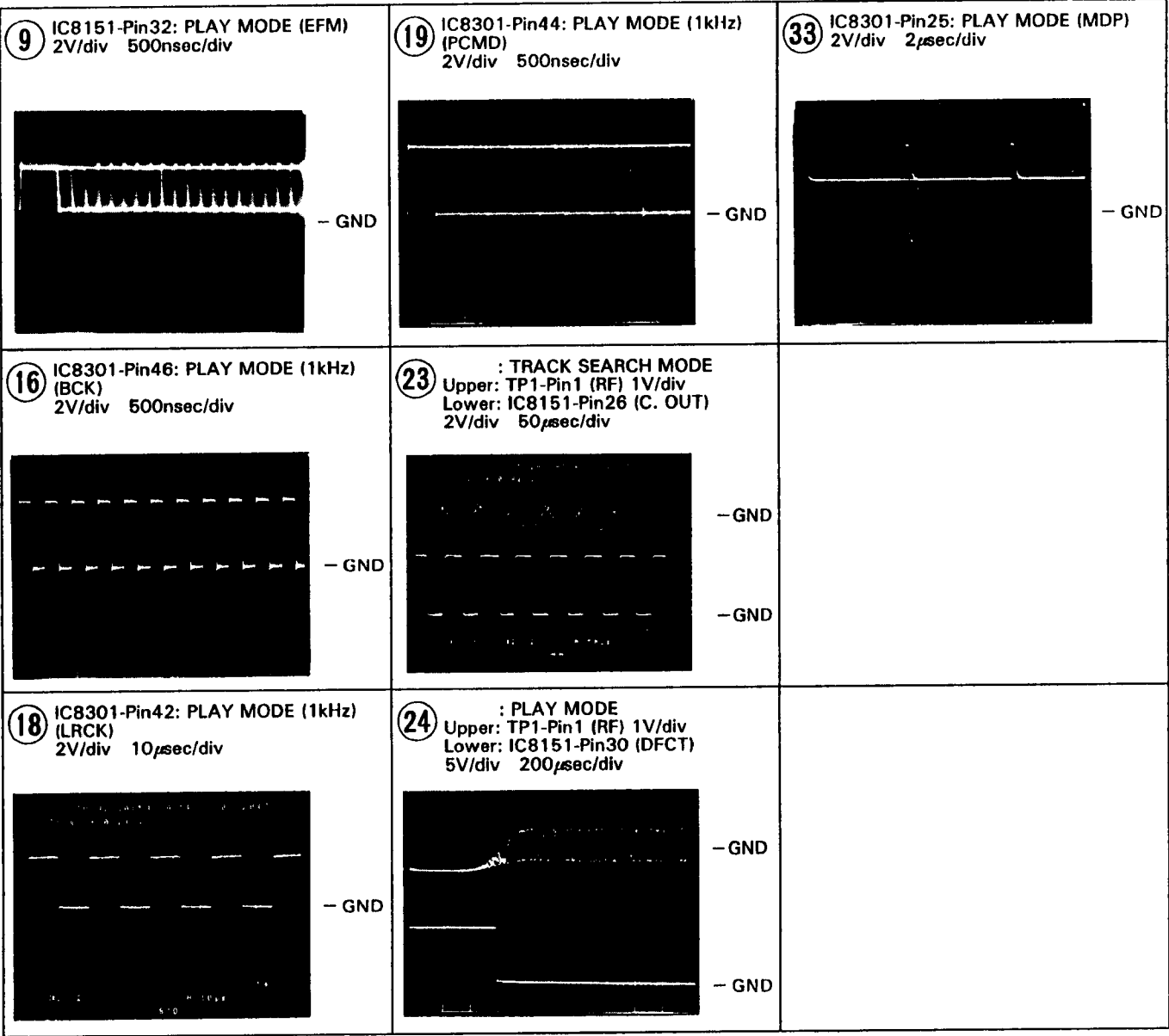
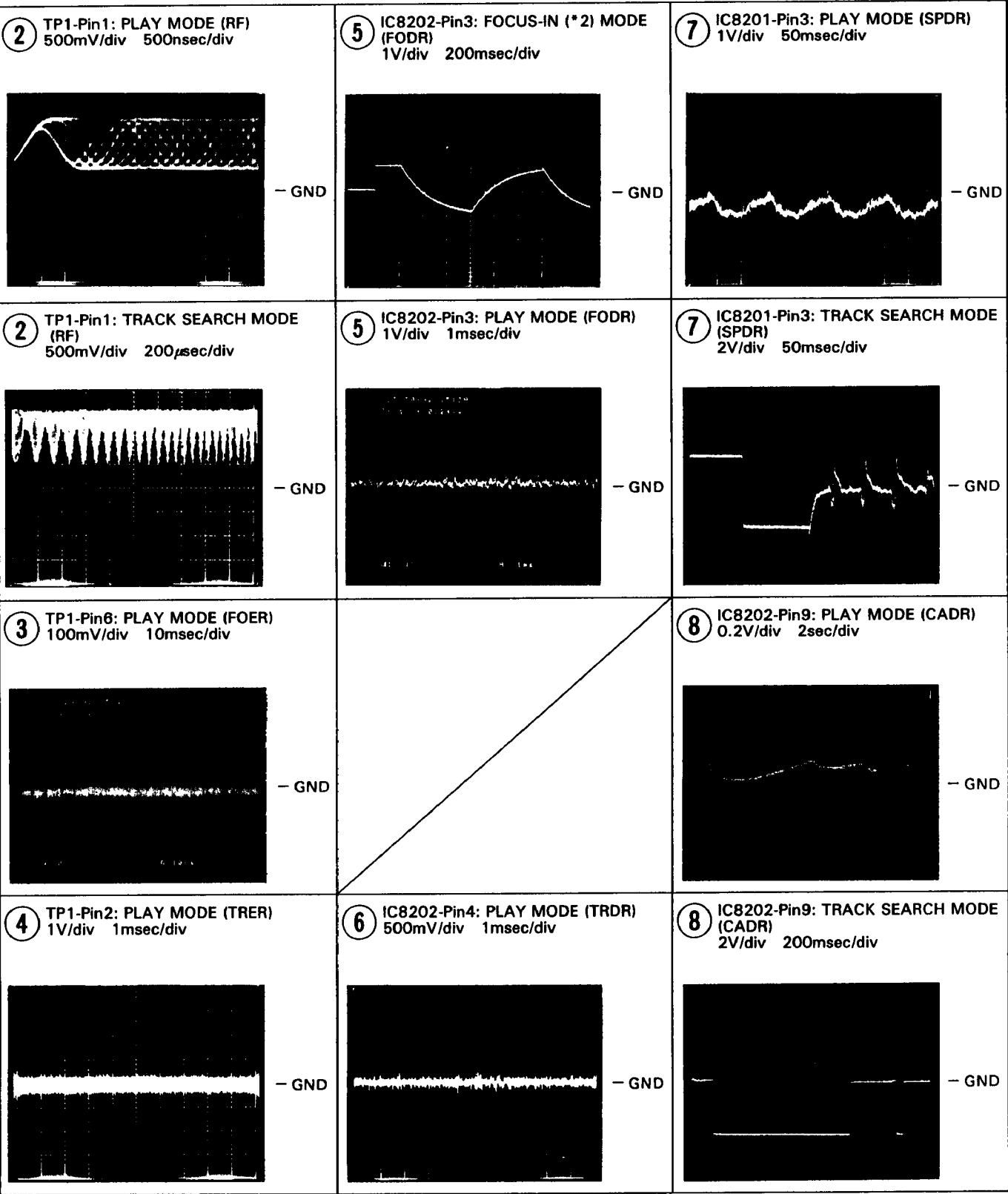


- This diagram is viewed from the mounted parts side.

Waveforms

Note: The encircled numbers denote measuring point in the schematic diagram.

*2 FOCUS: Press the key without loading a disc.



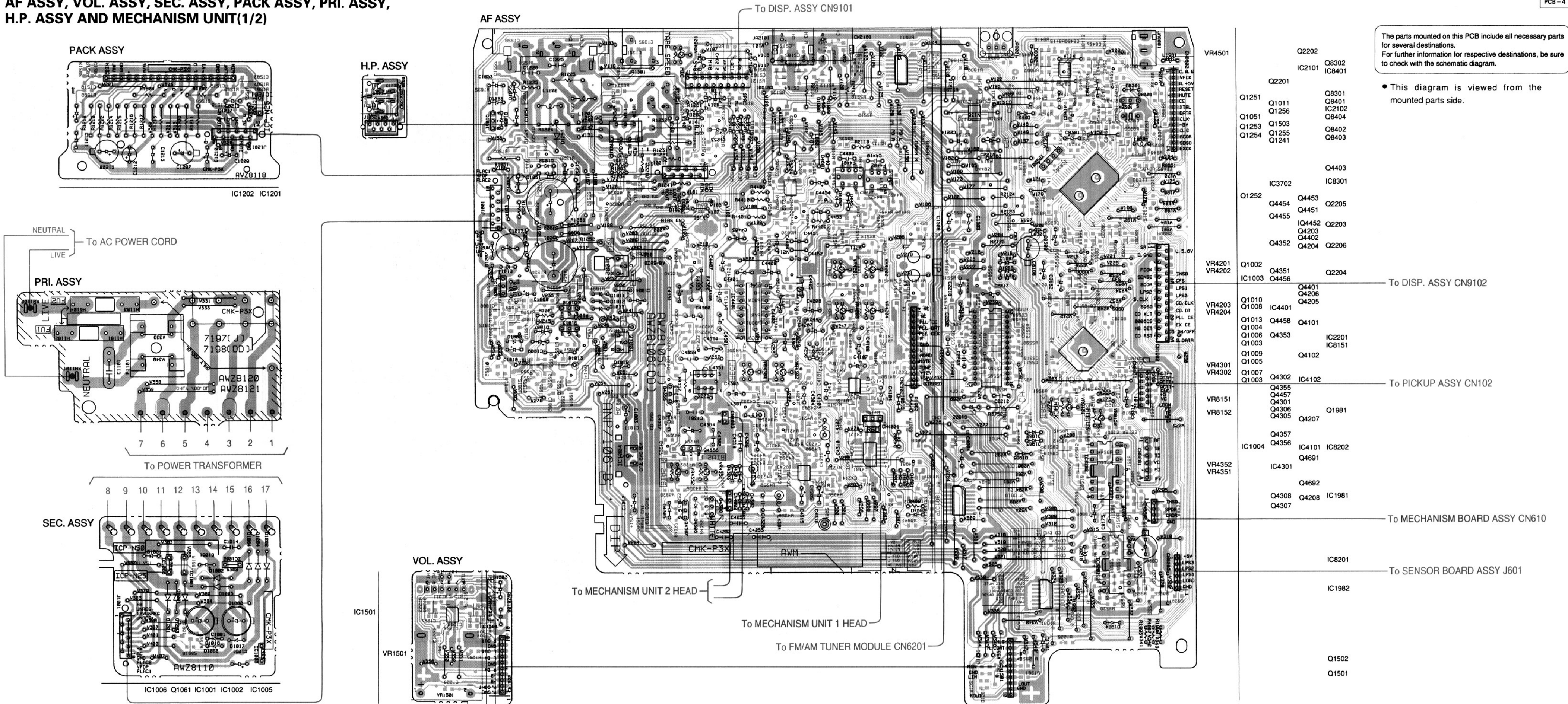
IC8151 (CXA1372Q)

Pin No.	Voltage [V]	Pin No.	Voltage [V]	Pin No.	Voltage [V]	Pin No.	Voltage [V]
1	2.5	13	2.5	25	5.0	37	2.0
2	2.5	14	2.5 to 2.6	26	0.1	38	2.7 to 2.8
3	2.5	15	2.5	27	4.9	39	2.5
4	2.5	16	0.8	28	0	40	3.2
5	2.4	17	1.3	29	0	41	0
6	2.5	18	2.5	30	0	42	2.5
7	2.6	19	0	31	0	43	2.5
8	2.5	20	5.0	32	2.7	44	2.5
9	2.5	21	5.0	33	5.0	45	2.5
10	5.0	22	4.9	34	1.3	46	2.5
11	2.5	23	5.0	35	1.0	47	2.5
12	2.5	24	4.9 to 5.0	36	5.0	48	2.4

IC8301 (CXD2508AQ)

Pin No.	Voltage [V]	Pin No.	Voltage [V]	Pin No.	Voltage [V]	Pin No.	Voltage [V]
1	0.1	21	5.0	41	2.4	61	2.0
2	0.1	22	0	42	2.4	62	0
3	5.0	23	5.0	43	2.4	63	0
4	0.1	24	5.0	44	2.4	64	2.5
5	4.9	25	2.6 to 2.7	45	2.4	65	0
6	0	26	0.1	46	1.8	66	0
7	2.2 to 2.5	27	5.0	47	1.8	67	0
8	5.0	28	0	48	0	68	5.0
9	4.9	29	2.7	49	4.9	69	2.5
10	5.0	30	2.6	50	1.2	70	2.5
11	4.9	31	2.6	51	4.9	71	5.0
12	0	32	5.0	52	2.5	72	5.0
13	4.9	33	0	53	0	73	2.4
14	0.1	34	2.7	54	0	74	2.4
15	4.9 to 5.0	35	5.0	55	4.9	75	0
16	5.0	36	2.7	56	4.5	76	0
17	4.9	37	0	57	0	77	2.5
18	0	38	0	58	0 to 0.3	78	2.5
19	0	39	2.5	59	2.8	79	0
20	0	40	0	60	1.4	80	0

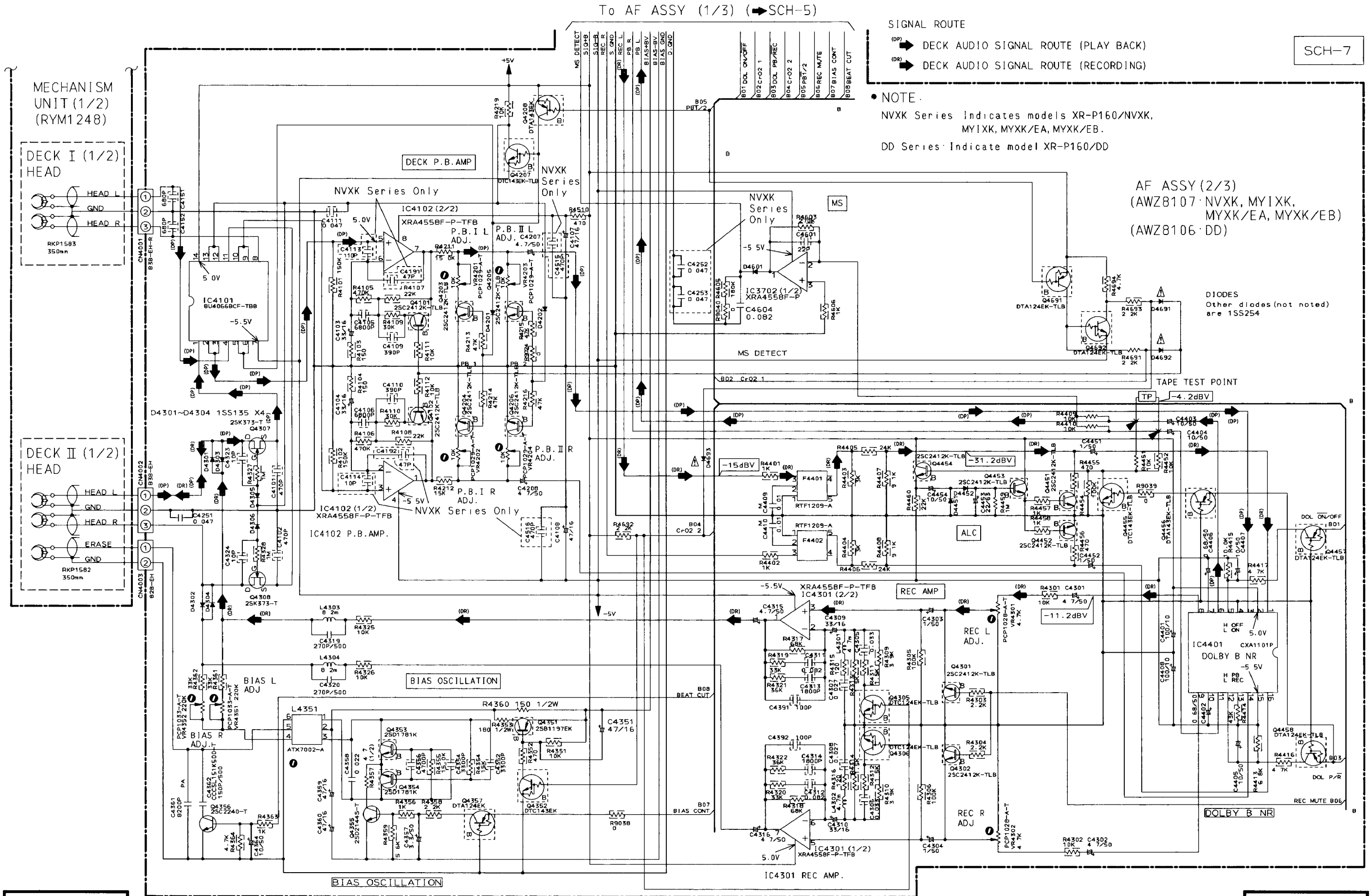
3.4 AF ASSY, VOL. ASSY, SEC. ASSY, PACK ASSY, PRI. ASSY, H.P. ASSY AND MECHANISM UNIT(1/2)



- This diagram is viewed from the mounted parts side.





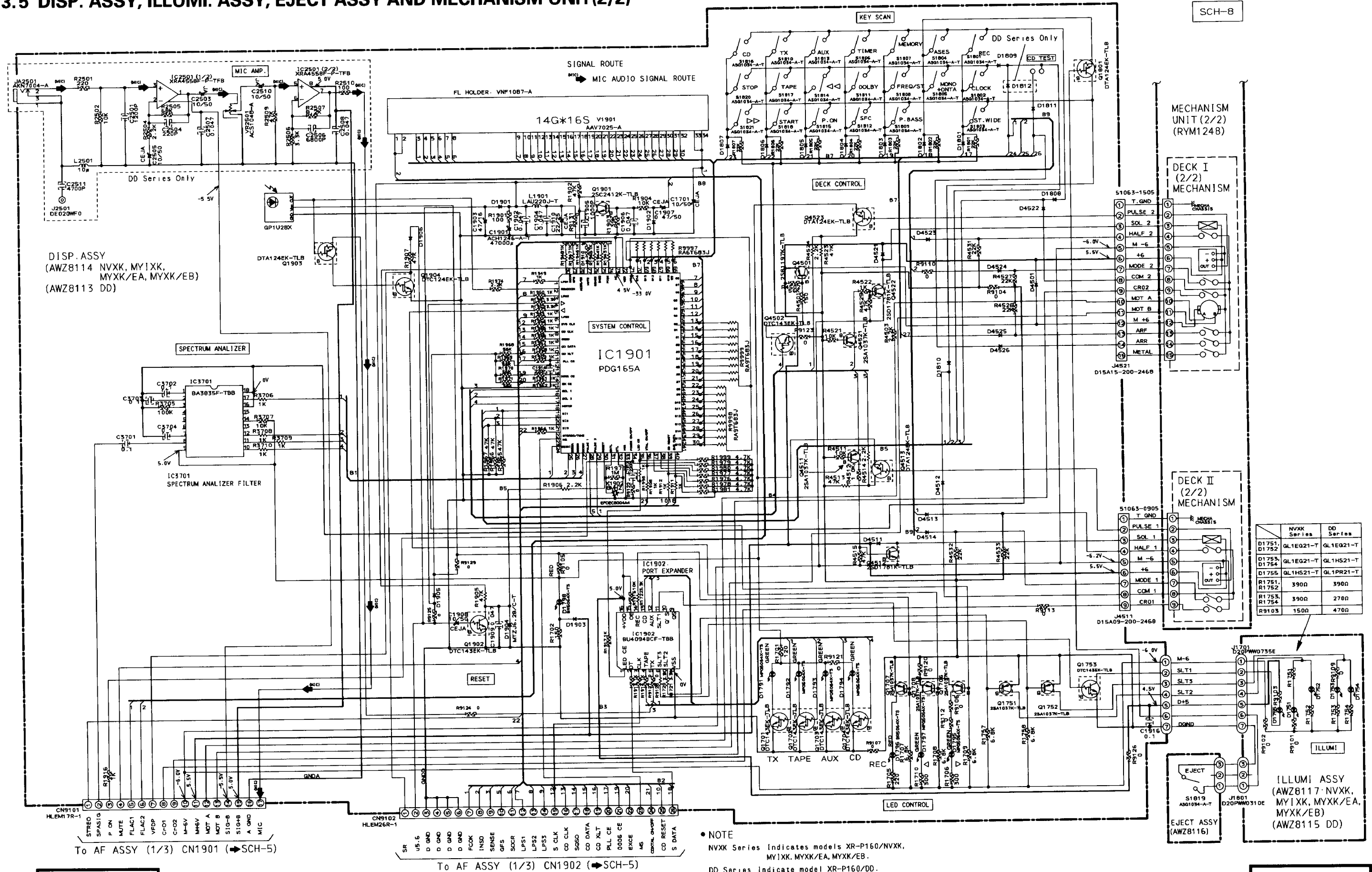


SCH-7

AF ASSY(3/3), MECHANISM UNIT(1/2)

SCH-7

AF ASSY(3/3), MECHANISM UNIT(1/2)



SCH-8

DISP. ASSY, ILLUMI. ASSY,
EJECT ASSY, MECHANISM UNIT(2/2)

SCH-8

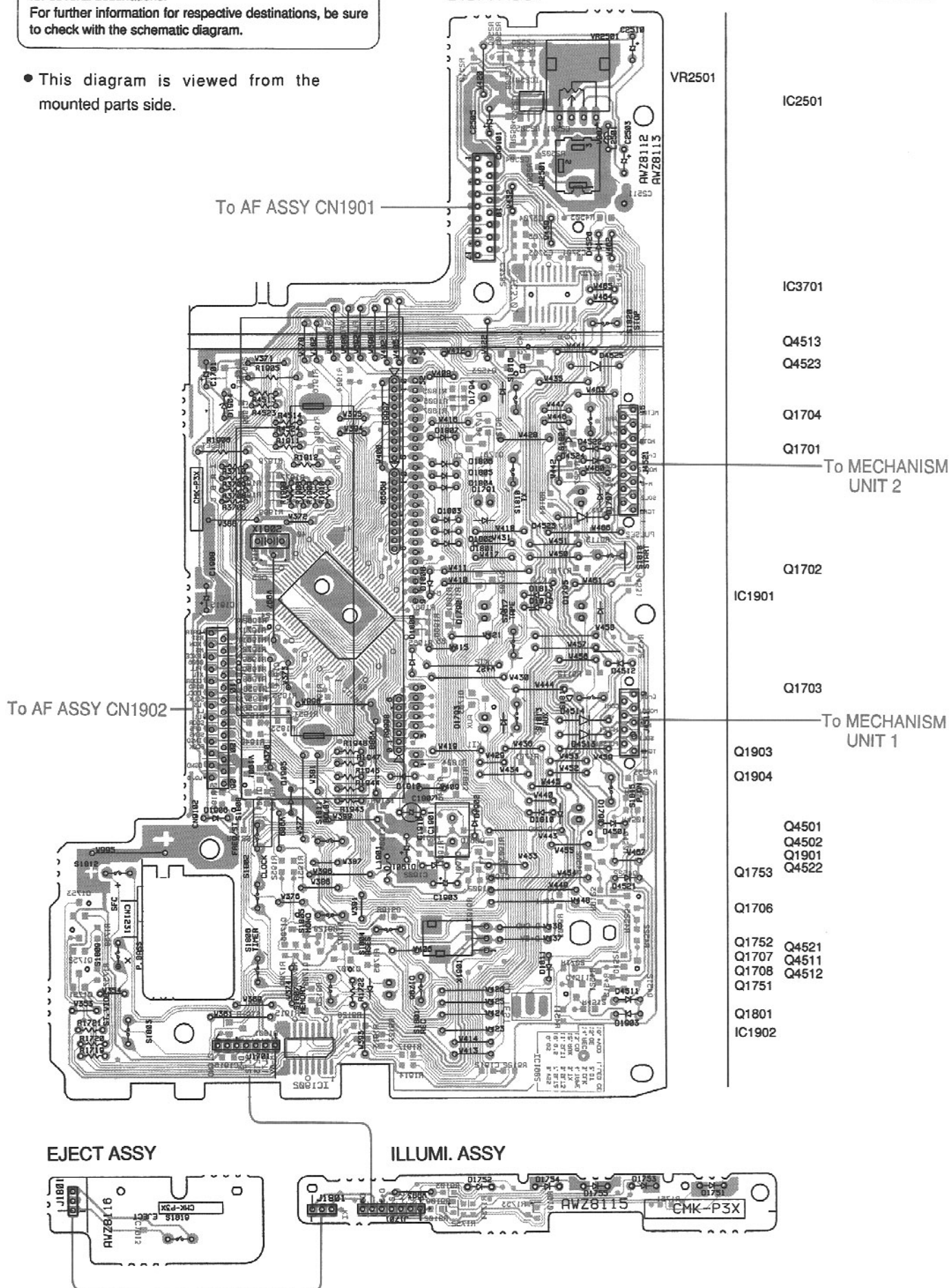
DISP. ASSY, ILLUMI. ASSY,
EJECT ASSY, MECHANISM UNIT(2/2)

The parts mounted on this PCB include all necessary parts for several destinations.

For further information for respective destinations, be sure to check with the schematic diagram.

- This diagram is viewed from the mounted parts side.

DISP. ASSY



4. PCB PARTS LIST

NOTES :

- Parts marked by " NSP " are generally unavailable because they are not in our Master Spare Parts List.
- The $\frac{1}{2}$ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- Parts marked by " ● " are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.
- When ordering resistors, first convert resistance values into code form as shown in the following examples.

Ex. 1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J = 5%, and K = 10%).

560 Ω $\rightarrow$ 56 $\times 10^1$ = 561 RD1/4PU $\begin{bmatrix} 5 & 6 & 1 \end{bmatrix}$ J

47k Ω $\rightarrow$ 47 $\times 10^3$ = 473 RD1/4PU $\begin{bmatrix} 4 & 7 & 3 \end{bmatrix}$ J

0.5 Ω $\rightarrow$ 0R5 RN2H $\begin{bmatrix} 0 & R & 5 \end{bmatrix}$ K

1 Ω $\rightarrow$ 1R0 RS1P $\begin{bmatrix} 1 & R & 0 \end{bmatrix}$ K

Ex. 2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62k Ω $\rightarrow$ 562 $\times 10^1$ = 5621 RN1/4PC $\begin{bmatrix} 5 & 6 & 2 & 1 \end{bmatrix}$ F

■ FOR XR-P160/NVXK, MYXK/EA, MYXK/EB AND MYIXK

Mark	No.	Description	Parts No.	Mark	No.	Description	Parts No.
LIST OF PCB ASSEMBLIES							
NSP	COMP. ASSY		AWM7199		Q1013		2SC2235
	— AF ASSY		AWZ8107		Q4356		2SC2240
	— VOL. ASSY		AWZ8109		Q1003, Q1005, Q1008, Q1253		2SC2412K
	— SEC. ASSY		AWZ8111		Q1255, Q1256, Q1501, Q1502		2SC2412K
	— DISP. ASSY		AWZ8114		Q4101, Q4102, Q4203–Q4206		2SC2412K
	— EJECT ASSY		AWZ8116				
	— ILLUMI ASSY		AWZ8117		Q4301, Q4302, Q4401, Q4402		2SC2412K
	— PACK ASSY		AWZ8119		Q4451–Q4454, Q8401, Q8402		2SC2412K
	— PRI. ASSY		AWZ8123		Q1009, Q4353, Q4354		2SD1781K
NSP	— H.P. ASSY		AWZ8300		Q1002		2SD2012
					Q4355		2SD2144S
	FM/AM TUNER MODULE		AXQ3214				
NSP	CD SLOT-IN MECHANISM UNIT		AXA7014		Q8301		2SK246
NSP	— SL MECHANISM BOARD ASSY		AWX7007		Q4307, Q4308		2SK373
NSP	— SENSOR BOARD ASSY		AWZ7328		Q1006, Q1241, Q1503, Q4357, Q4403		DTA124EK
NSP	— LED BOARD ASSY		AWZ7329		Q4457, Q4458, Q4691		DTA124EK
NSP	— SW BOARD ASSY		AWZ7330		Q1251, Q4208, Q4456, Q8302		DTA143EK
NSP	— MOTOR BOARD ASSY		AWZ7331				
NSP	— SERVO MECHANISM ASSY SL		AXA7017		Q8403, Q8404		DTA143EK
NSP	— MECHANISM BOARD ASSY		PWX1192		Q4305, Q4306, Q4692		DTC124EK
					Q1252, Q4207, Q4352, Q4455		DTC143EK
					D4301–D4304		1SS135
					D1054		1SS254
					D1251, D1981–D1985, D4201, D4202		1SS254
					D4305, D4306, D4451, D4452, D4601		1SS254
					D4691–D4693		1SS254
					D8301, D8302		1SS254
					D1053		MTZJ36A
					D1007		MTZJ5.6B
					D1008		MTZJ6.2B
					D8218		MTZJ6.2B
					D1055		MTZJ6.8A
					D1018–D1020		MTZJ8.2A
					D1011–D1014, D1051, D1052, D1207		S5688G
					D1253, D4551–D4553		S5688G
AF ASSY				COILS AND FILTERS			
SEMICONDUCTORS							
	IC4101		BU4066BCF		L1201, L1202 (5.3 μ H)		ATH-059
	IC1981, IC1982		BU4094BCF		L4351 [4.05MH(105kHz)]		ATX7002
	IC4401		CXA1101P		L1981		LAU100J
	IC8151		CXA1372Q		L8321		LAU1R2J
	IC8301		CXD2508AQ		L4301, L4302		LTA472J
	IC8201, IC8202		LA6520				
	IC1003		NJM78M56FA				
	IC1004		NJM78M12FA				
	IC2201		PM0006A				
	IC2102, IC3702, IC4102, IC4301, IC8401		XRA4558F–P				
	IC2101		XRU4052BCF				
	Q1004, Q1007, Q1011, Q1254, Q1981		2SA1037K				
	Q4351		2SB1197K				
	Q1010, Q1051		2SB1238X				
	Q1001		2SB1375				

Mark No.	Description	Parts No.	Mark No.	Description	Parts No.
SWITCHES AND RELAYS					
RY1251		ASR7007	C4311, C4312		CKSQYB823K25
CAPACITORS			C8207, C8210, C8215, C8219		CKSQYF103Z50
C1201, C1202		ACH1109	C2206, C2207, C4411, C8158, C8159		CKSQYF104Z25
C4362		CCCSL151K500	C8161, C8163, C8220, C8420, C8421		CKSQYF104Z25
C4319, C4320		CCCSL271K500	C1225, C1226, C4409, C4410		CQMA103J50
C4113, C4114, C4323, C4324, C8322		CCSQCH100D50	C4358		CQMA223J50
C2103-C2106, C4391, C4392		CCSQCH101J50	C2204, C2205		CQMA683J50
C8311-C8313		CCSQCH101J50	C4361		CQPA822J100
C8407-C8410		CCSQCH121J50	RESISTORS		
C3705		CCSQCH151J50	R4360		RD1/2PM151J
C4601, C8323		CCSQCH220J50	R4353		RD1/2PM181J
C2101, C2102		CCSQCH221J50	R4357		RD1/2PM4R7J
C8403-C8406		CCSQCH271J50	R1051		RD1/4PMF272J
C4109, C4110, C8401, C8402		CCSQCH391J50	R1223, R1224		RD1/4PMFL101J
C4191, C4192		CCSQCH470J50	R1221, R1222		RD1/6PM100J
C4101, C4102, C4515, C4516		CCSQCH471J50	R1990, R1992, R8651		RD1/6PM102J
C4151, C4152		CCSQCH681J50	R1261, R1262, R4409, R4410, R4451		RD1/6PM103J
C8411, C8412		CEANP2R2M50	R1982		RD1/6PM104J
C4303, C4304, C4451, C4452, C8314		CEAS010M50	R4459		RD1/6PM105J
C1053, C1054, C1252, C1505, C1506		CEAS100M50	R1253		RD1/6PM152J
C4364, C4403-C4405, C4407, C4454		CEAS100M50	R1993, R4691		RD1/6PM222J
C4401, C4408		CEAS101M10	R1021, R3704		RD1/6PM470J
C1052, C4453		CEAS220M63	R1241, R3752		RD1/6PM473J
C1253		CEAS221M10	R2118		RD1/6PM512J
C1008, C1012		CEAS2R2M50	R1013, R1014		RD1/6PM560J
C4103, C4104, C4309, C4310, C8301		CEAS330M16	R1263, R1264		RD1/6PM823J
C8175, C8176, C8315		CEAS331M16	R1231, R1232		RS1LMF331J
C1013		CEAS331M50	R1251, R1252		RS1PMFR22J
C4357		CEAS3R3M50	VR4301, VR4302, VR4501 (4.7kΩ)		PCP1028
C1003, C1009, C1010, C4107, C4108		CEAS470M16	VR4201-VR4204 (10kΩ)		PCP1029
C4351, C4359, C4360		CEAS470M16	VR8151, VR8152 22kΩ)		PCP1030
C1501, C1502, C4207, C4208		CEAS4R7M50	VR4351, VR4352 (220kΩ)		PCP1033
C4301, C4302, C4315, C4316, C8160		CEAS4R7M50	Other Resistors		RS1/10S□□□J
C8162		CEAS4R7M50	OTHERS		
C4402, C4406		CEASR68M50	CN8131	12P FPC CONNECTOR	12FMZ-ABT
C1004		CEJA470M16	CN8202	4P MT CONNECTOR	173981-4
C8309		CEJAR47M50		10P CABLE HOLDER	51063-1005
C4604		CFTXA823J50	CN8205	4P SPEAKER TERMINAL	52147-0610
C2217, C2218, C4251-C4253		CKCYF473Z50			AKE7001
C2212		CKCYX104M16	X8301	SMALL HEAT SINK	ANH-575
C1005, C1006, C2203, C2209, C8171		CKSQYB102K50		XTAL RES	ASS7000
C8321		CKSQYB102K50	CN4003	(OSC)(33.8688MHz-700PPM)	
C1227, C1228, C1992, C8157, C8164		CKSQYB103K50	CN4002	2P TOP POST (EH)	B2B-EH
C8167, C8169, C8218, C8308, C8361		CKSQYB103K50	CN4001	3P TOP POST (EH)	B3B-EH
C1007, C1011, C1221-C1224		CKSQYB104K25		3P TOP POST (EH, RED)	B3B-EH-R
C8302, C8303, C8362		CKSQYB104K25	CN1901	FFC CONNECTOR 17P	HLEM17S-1
C8306		CKSQYB152K50	CN1902	26P FFC CONNECTOR	HLEM26S-1
C4313, C4314		CKSQYB182K50	CN1501	10P PLUG	KM200IB10
C4307, C4308		CKSQYB273K50	CN2102	14P PLUG	KM200IB14
C4352, C4354, C8170		CKSQYB332K50	CN1232	7P JUMPER CONNECTOR	KPE7
C4305, C4306, C8156, C8168		CKSQYB333K50	JA2101	AUDIO 2P JACK	RKB1041
C4356, C8172		CKSQYB472K50	JA9001	REMOTE CONTROL JACK	RKN1004
C1233, C4111, C8307		CKSQYB473K25		PCB BINDER	VEF1008
C8155		CKSQYB561K50	CN8201	6P SIDE POST	VKN-004
C2208		CKSQYB562K50			
C4105, C4106		CKSQYB682K50			
C2210, C2211		CKSQYB822K50			

XR-P160

Mark No.	Description	Parts No.
VOL. ASSY		
SEMICONDUCTORS		
IC1501		XRA4558F-P
CAPACITORS		
C1553, C1554		CCSQCH101J50
C1551, C1552		CCSQCH220J50
C1503, C1504		CEAS2R2M50
C1557, C1558		CKSQYB104K25
C1550		CKSQYF104Z25
C1507, C1508		CKSQYF473Z50
RESISTORS		
VR1501		ACX1089
Other Resistors		RS1/10S□□□J
OTHERS		
CN1502		KP2001B10L
SEC. ASSY		
SEMICONDUCTORS		
IC1006		ICP-N25
IC1001, IC1002		ICP-N50
Q1061		2SC2412K
D1016, D1017, D1061, D1062		1SS254
D1001-D1004, D1201-D1204		S5688G
CAPACITORS		
C1002		CEAS102M16
C1051		CEAS220M63
C1001		CEAS222M16
C1061		CEAS2R2M50
C1014		CQPA103J100
RESISTORS		
Other Resistors		RS1/10S□□□J
OTHERS		
	10P CABLE HOLDER	51063-1005
DISP. ASSY		
SEMICONDUCTORS		
IC3701		BA3835F
IC1902		BU4094BCF
IC1901		PDG165A
Q1706-Q1708, Q1751, Q1752, Q4511		2SA1037K
Q4521		2SA1037K
Q4501		2SB1197K
Q1901		2SC2412K
Q4512, Q4522		2SD1781K
Q1801, Q1903, Q4513, Q4523		DTA124EK
Q1904		DTC124EK
Q1701-Q1704, Q1753, Q1902, Q4502		DTC143EK
D1801-D1811, D1901-D1903		1SS254
D1905, D1906, D1910, D4501		1SS254
D4511-D4514, D4521-D4526		1SS254
D1796, D1798		BR5064X
D1791-D1795, D1797		MPG5064X
D1904		MTZJ6.2B
COILS AND FILTERS		
L1901		LAU220J

Mark No.	Description	Parts No.
SWITCHES AND RELAYS		
	S1801-S1818, S1820, S1821	ASG1034
CAPACITORS		
C1901		ACH1246
C1914		CCSQCH221J50
C1903		CEAS470M16
C1701, C1908		CEJA100M50
C1910		CEJA220M25
C1907		CEJAR47M50
C1905		CKSQYB102K50
C3701, C3702, C3704		CKSQYB104K25
C1912		CKSQYB221K50
C1916, C3703		CKSQYF104Z25
C1902, C1904, C1906, C1909		CKSQYF473Z50
RESISTORS		
R9997		RA6T683J
R9998, R9999		RA9T683J
R1908, R1911, R1912, R1943-R1945		RD1/6PM102J
R1947, R1948, R1998, R3706		RD1/6PM102J
R3708-R3710		RD1/6PM102J
R1906, R4514, R4524		RD1/6PM222J
R1720-R1722		RD1/6PM332J
R1905, R4513, R4523		RD1/6PM473J
Other Resistors		RS1/10S□□□J
OTHERS		
	9P CABLE HOLDER	51063-0905
	15P CABLE HOLDER	51063-1505
V1901	FL TUBE	AAV7025
	REMOTE RECEIVER UNIT	GP1U28X
CN9101	17P FFC CONNECTOR	HLEM17R-1
CN9102	26P FFC CONNECTOR	HLEM26R-1
	FL HOLDER	VNF1087
X1902	CERAMIC RESONATOR	EFOEC8004A4
EJECT ASSY		
SWITCHES AND RELAYS		
	S1819	ASG1034
ILLUMI ASSY		
SEMICONDUCTORS		
D1751-D1754		GL1EG21
D1755		GL1HS21
RESISTORS		
Other Resistors		RS1/10S□□□J
PACK ASSY		
SEMICONDUCTORS		
IC1202		ICP-N25
IC1201		STK4142-2GP
CAPACITORS		
C1215, C1216		CCSQCH101J50
C1211		CEANP220M50
C1213		CEANP470M50
C1209, C1210, C1212		CEAS100M50
C1207, C1208		CEAS101M25
C1205, C1206		CEJA220M25
C1203, C1204		CKSQYB222K50
C1219		CKSQYB473K25

Mark	No.	Description	Parts No.
RESISTORS			
	R1209-R1212, R1216, R1217		RD1/4PM222J
	R1207, R1208		RD1/4PM563J
	R1213, R1214		RD1/4PMFL101J
	R1215		RD1/4PMFL102J
	R1218		RD1/4PMFL471J
	Other Resistors		RS1/10S□□□J
OTHERS			
	10P CABLE HOLDER		51063-1005
PRI. ASSY			
COILS AND FILTERS			
	L1101		ATF-163
CAPACITORS			
	C1101 (0.01μF/250V)		ACG7005
OTHERS			
	H1101, H1102 TAPING FUSE HOLDER		VKR1001
H.P. ASSY			
COILS AND FILTERS			
	L1231		PTL1014
CAPACITORS			
	C1231, C1232		CKSQYB102K50
OTHERS			
	CN1231 7P CABLE HOLDER CHIP CAPACITOR		51063-0705 AKN1028
FM/AM TUNER MODULE			
SEMICONDUCTORS			
	IC6201		LA1836M
	IC6202		LM7001J
	Q6102		2SC2223
	Q6203		2SC2235
	Q6202, Q6218		2SC2712
	Q6103, Q6214		2SC2714
	Q6201		2SK208
	Q6104, Q6105		2SK302
	Q6101		3SK194
	Q6204		XDA124EK
	Q6217		XDC124EK
	D6101-D6104		1SV228
COILS AND FILTERS			
	L6106		ATC1003
	L6105		ATC1015
	L6101		ATC1016
	L6102		ATC1017
	L6103		ATC1018
	L6104		ATC1019
	L6207 (10.7MHz)		ATE1013
	F6204		ATF-107
	F6203		ATF-119
	X6202 (450kHz)		ATF1027

Mark	No.	Description	Parts No.
	F6205		ATF1152
	F6202 (450kHz)		ATF1155
	L6107 (2.2μH)		ATH1043
	L6202, L6203, L6208		LCTA2R2J3225
	L6205		LCTA680J3225
CAPACITORS			
	C6204, C6234, C6236, C6269 (1μF/16V)		ACG1051
	C6120		CCSCH060D50
	C6229		CCSCH102J50
	C6111, C6122		CCSQCH010C50
	C6112		CCSQCH020C50
	C6118		CCSQCH080D50
	C6113		CCSQCH101J50
	C6116, C6208, C6221, C6222		CCSQCH150J50
	C6117		CCSQCH330J50
	C6272		CCSQL330J50
	C6105		CCSQL471J50
	C6101		CCSQTH110J50
	C6119		CCSQTH150J50
	C6109		CCSQTH270J50
	C6107, C6110		CCSQTH300J50
	C6106		CCSQTH330J50
	C6261		CEAS010M50
	C6224, C6231, C6233, C6246, C6262		CEAS100M50
	C6227		CEAS101M10
	C6216, C6217		CEAS330M16
	C6219		CEAS470M10
	C6243-C6245		CEAS470M16
	C6238, C6248		CEJA100M16
	C6249, C6250		CEJA4R7M35
	C6215		CFTXA103J50
	C6214		CFTXA224J50
	C6115, C6125, C6126, C6207		CKSQYB102K50
	C6102, C6114, C6121, C6124, C6210		CKSQYB103K50
	C6264		CKSQYB103K50
	C6247		CKSQYB122K50
	C6213		CKSQYB223K50
	C6230		CKSQYB273K50
	C6228		CKSQYB472K50
	C6209, C6237, C6267		CKSQYB473K50
	C6251, C6252		CKSQYB562K50
	C6212, C6218		CKSQYF103Z50
	C6220, C6226, C6239, C6242		CKSQYF223Z50
	C6255, C6256		CKSQYF223Z50
	C6235		CKSQYF224Z25
	C6225, C6241		CKSQYF473Z50
	C6123		CKSYB103K50
	C6232		CKSYB273K50
	C6223		CKSYF103Z50
	C6263		CKSYF473Z50
RESISTORS			
	R6299, R6300		RD1/6PM102J
	R6115, R6119, R6123, R6127, R6129		RS1/8S000J
	R6268-R6271, R6275, R6276, R6278		RS1/8S000J
	R6283, R6284, R6293, R6294, R6297		RS1/8S000J
	R6302, R6303		RS1/8S000J
	R6243, R6244		RS1/8S101J
	R6211, R6239		RS1/8S103J
	R6237		RS1/8S122J
	R6209		RS1/8S221J
	R6112		RS1/8S473J

XR-P160

Mark	No.	Description	Parts No.
	VR6201 (10kΩ)		ACP1056
	VR6202		VRTB6VS223
	Other Resistors		RS1/10S□□□J

OTHERS

BN6201	2P TERMINAL WITH PAL	AKA1017
CN6201	14P SOCKET	KP2001A14L
X6203 (7.200MHz)		ASS1042
X6201 (456kHz)		ASS1066

SENSOR BOARD ASSY

SEMICONDUCTORS

Q601, Q602	PS3062
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RESISTORS

All Resistors	RD1/6PM□□□J
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LED BOARD ASSY

SEMICONDUCTORS

D601, D602	AN306
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RESISTORS

All Resistors	RD1/6PM□□□J
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SW BOARD ASSY

SWITCHES AND RELAYS

S601	DSG1017
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MOTOR BOARD ASSY

MOTOR BOARD ASSY has no service part.

MECHANISM BOARD ASSY

SWITCHES AND RELAYS

S610	DSG1016
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OTHERS

CN610	MT CONNECTOR (4P)	173979-4
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■ FOR XR-P160/DD

Mark	No.	Description	Parts No.
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LIST OF PCB ASSEMBLIES

NSP	COMP. ASSY	AWM7198
	AF ASSY	AWZ8106
	VOL. ASSY	AWZ8108
	SEC. ASSY	AWZ8110
	DISP. ASSY	AWZ8113
	ILLUMI. ASSY	AWZ8115
	EJECT ASSY	AWZ8116
	PACK ASSY	AWZ8118
	PRI. ASSY	AWZ8121
NSP	H.P. ASSY	AWZ8299

	FM/AM TUNER MODULE	AXQ3112
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NSP	CD SLOT-IN MECHANISM UNIT	AXA7014
NSP	SL MECHANISM BOARD ASSY	AWX7007
NSP	SENSOR BOARD ASSY	AWZ7328
NSP	LED BOARD ASSY	AWZ7329
NSP	SW BOARD ASSY	AWZ7330
NSP	MOTOR BOARD ASSY	AWZ7331
NSP	SERVO MECHANISM ASSY SL	AXA7017
NSP	MECHANISM BOARD ASSY	PWX1192

AF ASSY

SEMICONDUCTORS

IC4101	BU4066BCF
IC1981, IC1982	BU4094BCF
IC4401	CXA1101P
IC8151	CXA1372Q
IC8301	CXD2508AQ

IC8201, IC8202	LA6520
IC1004	NJM78M12FA
IC1003	NJM78M56FA
IC2201	PM0006A
IC2102, IC3702, IC4102, IC4301, IC8401	XRA4558F-P

IC2101	XRU4052BCF
Q1004, Q1007, Q1011, Q1254, Q1981	2SA1037K
Q4351	2SB1197K
Q1010, Q1051	2SB1238X
Q1001	2SB1375

Q1013	2SC2235
Q4356	2SC2240
Q1003, Q1005, Q1008, Q1253	2SC2412K
Q1255, Q1256, Q1501, Q1502	2SC2412K
Q4101, Q4102, Q4203-Q4206	2SC2412K

Q4301, Q4302, Q4401, Q4402	2SC2412K
Q4451-Q4454, Q8401, Q8402	2SC2412K
Q1009, Q4353, Q4354	2SD1781K
Q1002	2SD2012
Q4355	2SD2144S

Q8301	2SK246
Q4307, Q4308	2SK373
Q1006, Q1241, Q1503, Q4357, Q4403	DTA124EK
Q4457, Q4458, Q4691	DTA124EK
Q1251, Q4208, Q4456, Q8302	DTA143EK

Q8403, Q8404	DTA143EK
Q4305, Q4306, Q4692	DTC124EK
Q1252, Q4207, Q4352, Q4455	DTC143EK
D4301-D4304	1SS135
D1054	1SS254

D1251, D1981-D1985, D4201, D4202	1SS254
D4305, D4306, D4451, D4452, D4601	1SS254
D4691-D4693	1SS254
D8301, D8302	1SS254

- This diagram is viewed from the mounted parts side.

NOTE FOR PCB DIAGRAMS:

1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between the main parts of PCB and schematic diagrams is shown below.

Symbol in PCB Diagrams	Symbol in Schematic Diagrams	Part Name
		Transistor
		Diode
		Capacitor (Polarized)

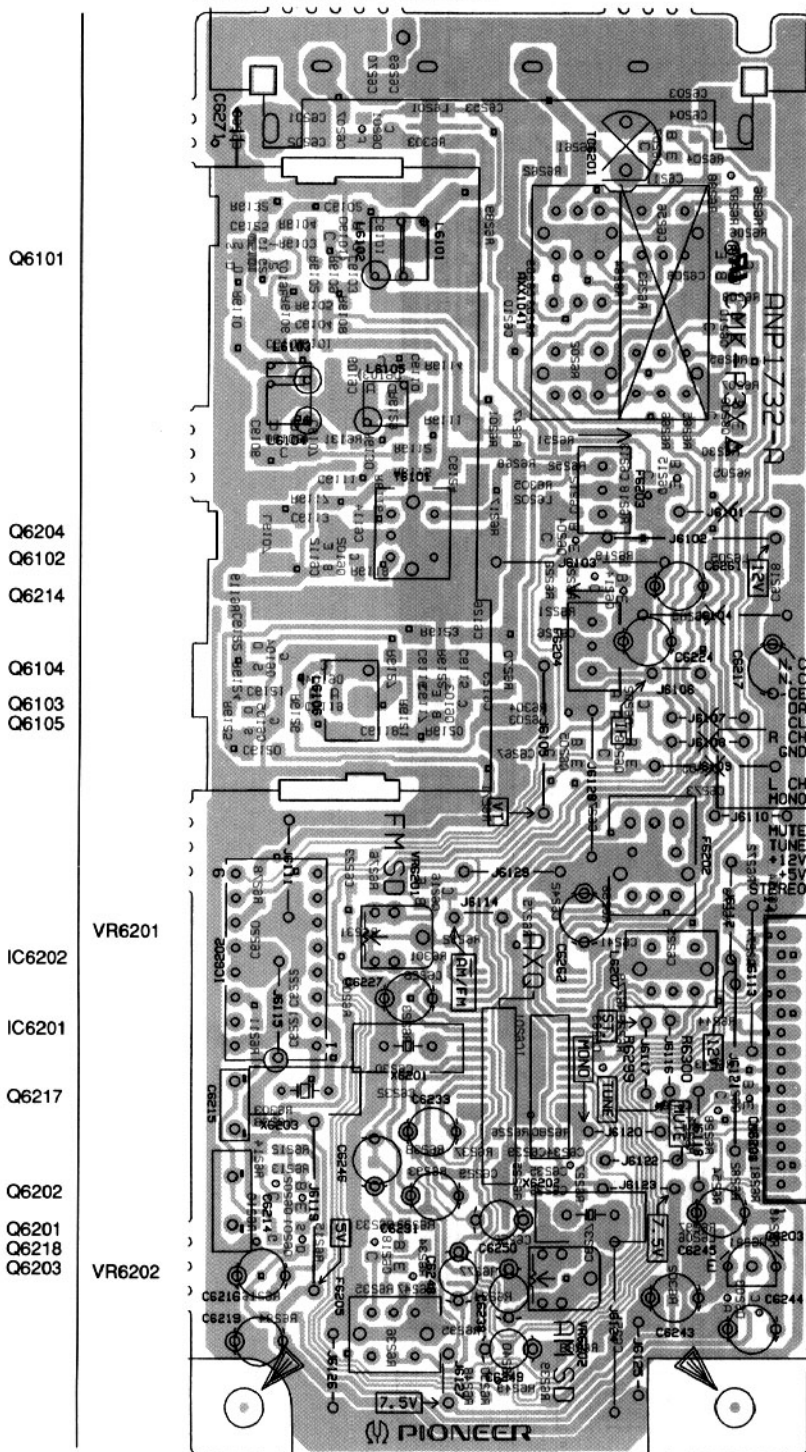
3. The transistor terminal marked with E or shows the emitter.
4. The diode terminal marked with or C shows cathode side.
5. The capacitor terminal marked with or N shows negative terminal.

NOTE FOR PCB DIAGRAMS:

1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between the main parts of PCB and schematic diagrams is shown below.

Symbol in PCB Diagrams	Symbol in Schematic Diagrams	Part Name
		Transistor
		Transistor with resistor
		Field effect transistor
		Resistor array
		3-terminal regulator

FM/AM TUNER MODULE



The parts mounted on this PCB include all necessary parts for several destinations.
For further information for respective destinations, be sure to check with the schematic diagram.

● For DD type (AXQ3112)

Q6101

Q6204
Q6102
Q6214

Q6103
Q6104

VR6201

IC6202

IC6201

Q6217

Q6202

Q6201

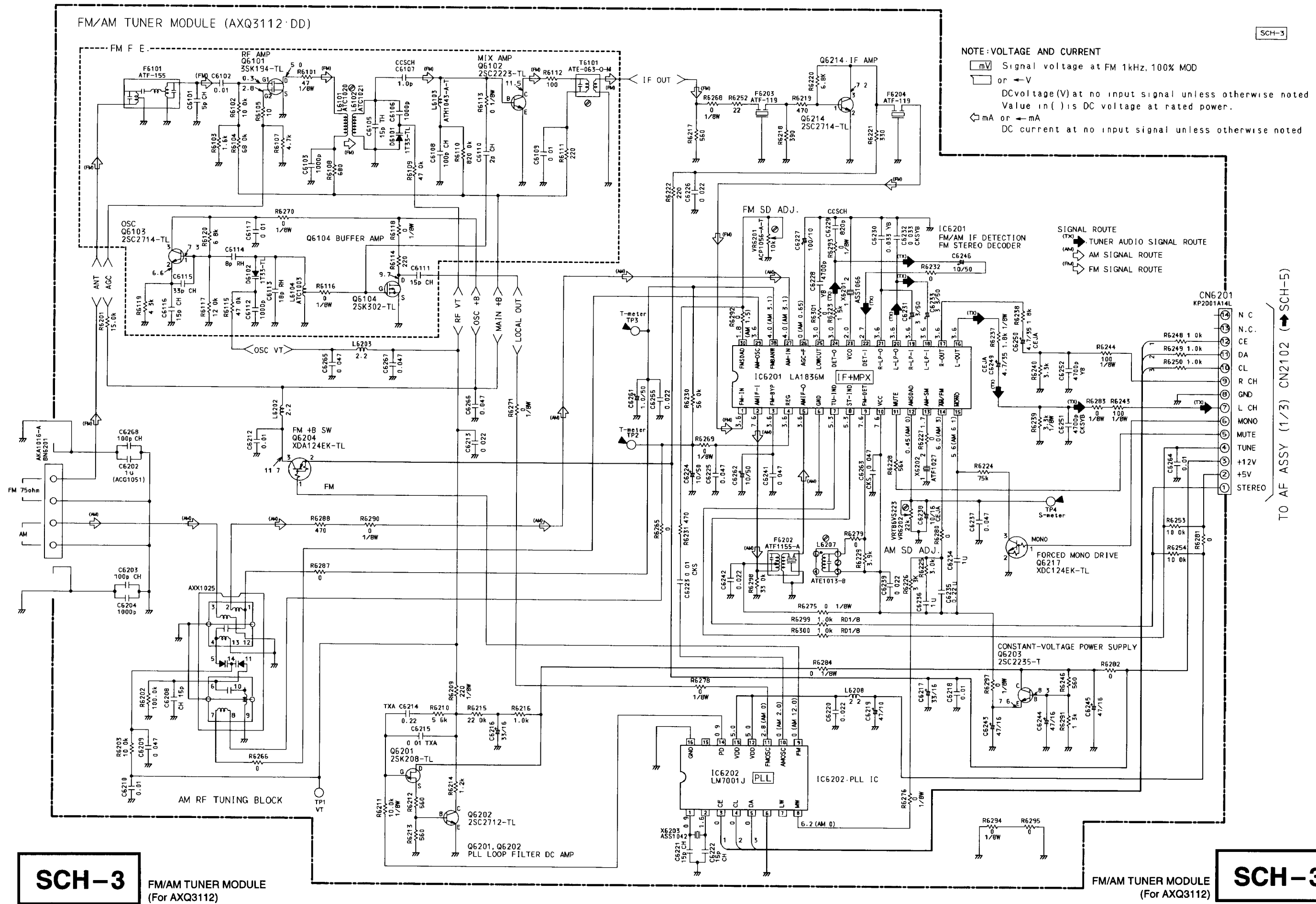
Q6203

VR6202

- To AF ASSY CN2102

- This diagram is viewed from the mounted parts side.

SCH-3



Mark No.	Description	Parts No.
1	D1053	MTZJ36A
1	D1007	MTZJ5.6B
1	D1008	MTZJ6.2B
1	D8218	MTZJ6.2B
1	D1055	MTZJ6.8A
	D1011-D1014, D1051, D1052, D1207	S5688G
	D1253	S5688G

COILS AND FILTERS

L1201, L1202 (1μH)	ATH-133
L4351 (4.05μH, (105kHz))	ATX7002
L1981	LAU100J
L8321	LAU1R2J
L4301, L4302	LTA472J
L4303, L4304	LTA822J
F4401, F4402	RTF1209

SWITCHES AND RELAYS

RY1251(12V)	ASR7007
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CAPACITORS

C1201, C1202 (2200μF/42V)	ACH1109
C4362	CCCSL151K500
C4319, C4320	CCCSL271K500
C4323, C4324, C8322	CCSQCH100D50
C4391, C4392, C8311-C8313	CCSQCH101J50
C8407-C8410	CCSQCH121J50
C3705	CCSQCH151J50
C4601, C8323	CCSQCH220J50
C8403-C8406	CCSQCH271J50
C4109, C4110, C8401, C8402	CCSQCH391J50
C4101, C4102	CCSQCH471J50
C4151, C4152	CCSQCH681J50
C8411, C8412	CEANP2R2M50
C4303, C4304, C4451, C4452, C8314	CEAS010M50
C1053, C1054, C1252, C1505, C1506	CEAS100M50
C4364, C4403-C4405, C4407, C4454	CEAS100M50
C4401, C4408	CEAS101M10
C1052, C4453	CEAS220M63
C1253	CEAS221M10
C1008, C1012	CEAS2R2M50
C4103, C4104, C4309, C4310, C8301	CEAS330M16
C8175, C8176, C8315	CEAS331M16
C1013	CEAS331M50
C4357	CEAS3R3M50
C1003, C1004, C1009, C1010	CEAS470M16
C4107, C4108, C4351, C4359, C4360	CEAS470M16
C1501, C1502, C4207, C4208	CEAS4R7M50
C4301, C4302, C4315, C4316, C8160	CEAS4R7M50
C8162	CEAS4R7M50
C4402, C4406	CEASR68M50
C8309	CEJAR47M50
C4604	CFTXA823J50
C4251	CKCYF473Z50
C2212	CKCYX104M16
C1005, C1006, C2203, C2209, C8171	CKSQYB102K50
C8321	CKSQYB102K50
C1992, C8157, C8164, C8167, C8169	CKSQYB103K50
C8218, C8308, C8361	CKSQYB103K50
C1007, C1011, C1221-C1224	CKSQYB104K25
C8302, C8303, C8362	CKSQYB104K25

Mark	No.	Description	Parts No.
	C8306		CKSQYB152K50
	C4313, C4314		CKSQYB182K50
	C4307, C4308		CKSQYB273K50
	C4352, C4354, C8170		CKSQYB332K50
	C4305, C4306, C8156, C8168		CKSQYB333K50
	C4356, C8172		CKSQYB472K50
	C4111, C8307		CKSQYB473K25
	C8155		CKSQYB561K50
	C2208		CKSQYB562K50
	C4105, C4106		CKSQYB682K50
	C2210, C2211		CKSQYB822K50
	C4311, C4312		CKSQYB823K25
	C8207, C8210, C8215, C8219		CKSQYF103Z50
	C2206, C2207, C8158, C8159, C8161		CKSQYF104Z25
	C8163, C8220, C8420, C8421		CKSQYF104Z25
	C4409, C4410		CQMA103J50
	C4358		CQMA223J50
	C2204, C2205		CQMA683J50
	C4361		CQPA822J100

RESISTORS

R4360	RD1/2PM151J
R4353	RD1/2PM181J
R4357	RD1/2PM4R7J
R1051	RD1/4PMF272J
R1223, R1224	RD1/4PMFL100J
R1221, R1222	RD1/6PM100J
R1990, R1992, R8651	RD1/6PM102J
R1261, R1262, R4409, R4410, R4451	RD1/6PM103J
R1982	RD1/6PM104J
R4459	RD1/6PM105J
R1253	RD1/6PM152J
R1993, R4691	RD1/6PM222J
R1021, R3704	RD1/6PM470J
R1241, R3752	RD1/6PM473J
R2118	RD1/6PM512J
R1013, R1014	RD1/6PM560J
R1263, R1264	RD1/6PM823J
R1231, R1232	RS1LMF331J
R1251, R1252	RS1PMFR22J
VR4301, VR4302, VR4501 (4.7kΩ)	PCP1028
VR4201-VR4204 (10kΩ)	PCP1029
VR8151, VR8152 (22kΩ)	PCP1030
VR4351, VR4352 (220kΩ)	PCP1033
Other Resistors	RS1/10S□□□J

OTHERS

CN8131	12P FPC CONNECTOR	12FMZ-ABT
CN8202	MT 4P CONNECTOR	173981-4
	10P CABLE HOLDER	51063-1005
CN8205	6P JUMPER CONNECTOR	52147-0610
	SPEAKER TERMINAL 4A P	AKE7001
	SMALL HEAT SINK	ANH-575
X8301 (33.8688Mz)		ASS7000
CN4003	2P TOP POST	B2B-EH
CN4002	3P TOP POST	B3B-EH
CN4001	3P TOP POST(RED)	B3B-EH-R
C1233	CERAMIC CAPACITOR	CKSQYB473K25
C4411	CERAMIC CAPACITOR	CKSQYF104Z25
CN1901	17P FFC CONNECTOR	HLEM17S-1
CN1902	26P FFC CONNECTOR	HLEM26S-1
CN1501	10P PLUG	KM200IB10

XR-P160

Mark	No.	Description	Parts No.
	CN2102	14P PLUG	KM200IB14
	CN1232	7P JUMPER CONNECTOR	KPE7
	D1018-D1020	ZINER DIODE	MTZJ8.2A
	JA2101	PIN JACK 2P	RKB1041
	JA9001	REMOTE CONTROL JACK	RKN1004
	D4551-D4553	DIODE	S5688G
		PCB BINDER	VEF1008
	JA1301	PIN JACK 2P	VKB1060
	CN8201	6P SIDE POST	VKN-004

VOL. ASSY

SEMICONDUCTORS

IC1501	XRA4558F-P
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CAPACITORS

C1503, C1504	CEAS2R2M50
C1557, C1558	CKSQYB104K25
C1550	CKSQYF104Z25
C1507, C1508	CKSQYF473Z50

RESISTORS

VR1501 (100K-3B x 2)	ACX1089
Other Resistors	RS1/10S□□□J

OTHERS

CN1502	10P SOCKET	KP200IB10L
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SEC. ASSY

SEMICONDUCTORS

IC1006	ICP-N25
IC1001, IC1002	ICP-N50
Q1061	2SC2412K
D1016, D1017, D1061, D1062	1SS254
D1001-D1004, D1201-D1204	S5688G

CAPACITORS

C1002	CEAS102M16
C1051	CEAS220M63
C1001	CEAS222M16
C1061	CEAS2R2M50

RESISTORS

All Resistors	RS1/10S□□□J
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OTHERS

10P CABLE HOLDER	51063-1005
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DISP. ASSY

SEMICONDUCTORS

IC3701	BA3835F
IC1902	BU4094BCF
IC1901	PDG165A
IC2501	XRA4558F-P
Q1706-Q1708, Q1751, Q1752, Q4511	2SA1037K
Q4521	2SA1037K
Q4501	2SB1197K
Q1901	2SC2412K
Q4512, Q4522	2SD1781K
Q1903, Q4513, Q4523	DTA124EK
Q1904	DTC124EK
Q1701-Q1704, Q1753, Q1902, Q4502	DTC143EK
D1801-D1812, D1901-D1903	1SS254
D1905, D1906, D1910, D4501	1SS254
D4511-D4514, D4521-D4526	1SS254

Mark	No.	Description	Parts No.
	D1796, D1798		BR5064X
	D1791-D1795, D1797		MPG5064X
	D1904		MTZJ6.2B
	COILS AND FILTERS		
	L1901		LAU220J
	SWITCHES AND RELAYS		
	S1801-S1818, S1820, S1821		ASG1034

CAPACITORS

C1901	ACH1246
C2504	CCSQCH221J50
C1903	CEAS470M16
C1701, C1908, C2503, C2505, C2510	CEJA100M50
C1910	CEJA220M25
C1907	CEJAR47M50
C1905	CKSQYB102K50
C3701, C3702, C3704	CKSQYB104K25
C2501	CKSQYB122K50
C1912	CKSQYB221K50

C2511	CKSQYB472K50
C2507, C2508	CKSQYB473K25
C2506	CKSQYB682K50
C3703	CKSQYF104Z25
C1902, C1904, C1906, C1909	CKSQYF473Z50

RESISTORS

R9997	RA6T683J
R9998, R9999	RA9T683J
R1908, R1911, R1912, R1943-R1945	RD1/6PM102J
R1947, R1948, R1998, R3706	RD1/6PM102J
R3708-R3710	RD1/6PM102J
R1906, R4514, R4524	RD1/6PM222J
R1720-R1722	RD1/6PM332J
R1905, R4513, R4523	RD1/6PM473J
VR2501(10K-B)	ACS1048
Other Resistors	RS1/10S□□□J

OTHERS

9P CABLE HOLDER	51063-0905
15P CABLE HOLDER	51063-1505
FL TUBE	AAV7025
VARIABLE(10K x 1)	AKN7004
CHIP CERAMIC C.	CCSQCH221J50
C1916	CKSQYF104Z25
Q1801	DTA124EK
	GP1U28X
CN9101	HLEM17R-1
CN9102	HLEM26R-1
L2501	LAU100J
FL HOLDER	VNF1087
X1902	EFOEC8004A4

ILLUMI. ASSY

SEMICONDUCTORS

D1751, D1752	GL1EG21
D1753, D1754	GL1HS21
D1755	GL1PR21

RESISTORS

All Resistors	RS1/10S□□□J
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EJECT ASSY

SWITCHES AND RELAYS

S1819	ASG1034
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Mark	No.	Description	Parts No.
PACK ASSY			
SEMICONDUCTORS			
	IC1202		ICP-N25
	IC1201		STK4142-2GP
CAPACITORS			
	C1211		CEANP220M50
	C1213		CEANP470M50
	C1209, C1210, C1212		CEAS100M50
	C1207, C1208		CEAS101M25
	C1205, C1206		CEJA220M25
	C1203, C1204		CKSQYB222K50
RESISTORS			
	R1209-R1212, R1216, R1217		RD1/4PM222J
	R1207, R1208		RD1/4PM563J
	R1213, R1214		RD1/4PMFL101J
	R1215		RD1/4PMFL102J
	R1218		RD1/4PMFL471J
	Other Resistors		RS1/10S□□□J
OTHERS			
	10P CABLE HOLDER		51063-1005
PRI. ASSY			
SWITCHES AND RELAYS			
	S1101		AKX7003
CAPACITORS			
	C1101 (0.01μF/250V)		ACG7005
OTHERS			
	H1101-H1104		VKR1001
H.P. ASSY			
RESISTORS			
	Other Resistors		RS1/10S□□□J
OTHERS			
	7P CABLE HOLDER		51063-0705
	CN1231	AKN1028	
FM/AM TUNER MODULE			
SEMICONDUCTORS			
	IC6201		LA1836M
	IC6202		LM7001J
	Q6102		2SC2223
	Q6203		2SC2235
	Q6202		2SC2712
	Q6103, Q6214		2SC2714
	Q6201		2SK208
	Q6104		2SK302
	Q6101		3SK194
	Q6204		XDA124EK
	Q6217		XDC124EK
	D6101, D6102		1T33
COILS AND FILTERS			
	L6104		ATC1003
	L6101		ATC1020
	L6102		ATC1021
	T6101		ATE-063
	L6207 (10.7MHz)		ATE1013

Mark	No.	Description	Parts No.
	F6203, F6204		ATF-119
	F6101		ATF-155
	F6202 (450kHz)		ATF1155
	L6103 (2.2 μH)		ATH1043
	L6202, L6203, L6208		LCTA2R2J3225
CAPACITORS			
	C6202, C6234, C6236 (1μF/16V)		ACG1051
	C6107		CCSCH010C50
	C6229		CCSCH821J50
	C6110		CCSQCH020C50
	C6101		CCSQCH050C50
	C6108, C6203, C6268		CCSQCH101J50
	C6111, C6116, C6208, C6221, C6222		CCSQCH150J50
	C6115		CCSQCH330J50
	C6114		CCSQRH080D50
	C6113		CCSQRH180J50
	C6105		CCSQTH150J50
	C6261		CEAS010M50
	C6224, C6246, C6262		CEAS100M50
	C6227		CEAS101M10
	C6216, C6217		CEAS330M16
	C6231, C6233		CEAS3R3M50
	C6219		CEAS470M10
	C6243-C6245		CEAS470M16
	C6238		CEJA100M16
	C6249, C6250		CEJA4R7M35
	C6215		CFTXA103J50
	C6214		CFTXA224J50
	C6103, C6106, C6112, C6204		CKSQYB102K50
	C6102, C6109, C6117, C6210, C6264		CKSQYB103K50
	C6213		CKSQYB223K50
	C6230		CKSQYB333K50
	C6228, C6252		CKSQYB472K50
	C6209, C6237, C6265, C6267		CKSQYB473K50
	C6212, C6218		CKSQYF103Z50
	C6220, C6226, C6239, C6242, C6255		CKSQYF223Z50
	C6235		CKSQYF224Z25
	C6225, C6241, C6266		CKSQYF473Z50
	C6232		CKSYB333K50
	C6251		CKSYB472K50
	C6223		CKSYF103Z50
	C6263		CKSYF473Z50
RESISTORS			
	VR6201 (10kΩ)		ACP1056
	VR6202		VRTB6VS223
	R6299, R6300		RD1/8PM102J
	R6113, R6116, R6118, R6268-R6271		RS1/8S000J
	R6275, R6276, R6278, R6283, R6284		RS1/8S000J
	R6290, R6293, R6294, R6297		RS1/8S000J
	R6243, R6244		RS1/8S101J
	R6211		RS1/8S103J
	R6237		RS1/8S182J
	R6209		RS1/8S221J
	R6239		RS1/8S332J
	R6101		RS1/8S470J
	Other Resistors		RS1/10S□□□J
OTHERS			
	BN6201	TERMINAL 4-P	AKA1016
	X6203 (7.200MHz)		ASS1042
	X6201 (456kHz)		ASS1066
	X6202 (450kHz)		ATF1027
		AM RF TUNING BLOCK	AXX1025
	CN6201	14P SOCKET	KP2001A14L

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Mark	No.	Description	Parts No.
SENSOR BOARD ASSY			
SEMICONDUCTORS			
	Q601, Q602		PS3062
RESISTORS			
	All Resistors		RD1/6PM□□□J
LED BOARD ASSY			
SEMICONDUCTORS			
	D601, D602		AN306
RESISTORS			
	All Resistors		RD1/6PM□□□J
SW BOARD ASSY			
SWITCHES AND RELAYS			
	S601		DSG1017
MOTOR BOARD ASSY			
MOTOR BOARD ASSY has no service part.			
MECHANISM BOARD ASSY			
SWITCHES AND RELAYS			
	S610		DSG1016
OTHERS			
	CN610	MT CONNECTOR (4P)	173979-4

5. ADJUSTMENTS

5.1 TUNER SECTION

■ FM Tuner Section

- Set the mode selector to FM BAND.
- Connect the wiring as shown in Fig. 1-1.
- For DD type (AXQ3112)

Step No.	Adjustment Title	FM SG (1kHz, ± 75 kHz dev.)		Reception Frequency Display	Adjustment Location	Specifications
		Frequency (MHz)	Level (dB μ V)			
1	Center Adjustment	98 Non modulation	80 or more	98MHz	L6207	Adjust so that the DC voltage between IC6201-Pin 4 and Pin 28 (or $\oplus$ leads of C6224 and C6261) becomes 0V $\pm$ 50mV.
2	Front End Sencitivity	98	0-30	98MHz	L6102 T6101	Adjust so that the DC voltage between the IC6201-Pin 12 and GND (or $\oplus$ leads of C6238 and GND) becomes at maximum level.
3	Stereo Distortion	98	80	98MHz	T6101	Minimize the distortion with 1/8 rotation of the core.
4	TUNED IND. Lighting Level	98	15 $\pm$ 2	98MHz	VR6201	Adjust so that the indicator of TUNED IND. starts to light up.

Notes:

- Before adjusting, make sure there is no gap between L6101 and L6102. If there is a gap between them, bring them into contact with each other first, and then make adjustments.
- Make indicator adjustments in order of AM $\rightarrow$ FM.

- For NVXK, MYIXK, MYXK/EA and MYXK/EB types (AXQ3214)

Step No.	Adjustment Title	FM SG (1kHz, ± 75 kHz dev.)		Reception Frequency Display	Adjustment Location	Specifications
		Frequency (MHz)	Level (dB μ V)			
1	Center Adjustment	98 Non modulation	80 or more	98MHz	L6207	Adjust so that the DC voltage between IC6201-Pin 4 and Pin 28 (or $\oplus$ leads of C6224 and C6261) becomes 0V $\pm$ 50mV.
2	Front End Sencitivity	106	0-30	106MHz	L6104 L6105 L6102 T6101	After adjusting L6104 and L6105 so that the DC voltage between LC6201-Pin12 and GND (or $\oplus$ leads of C6238 and GND) becomes at maximum level, adjust T6101 and L6102.
3	Stereo Distortion	98	80	98MHz	T6101	Minimize the distortion with 1/8 rotation of the core.
4	TUNED IND. Lighting Level	98	15 $\pm$ 2	98MHz	VR6201	Adjust so that the indicator of TUNED IND. starts to light up.

Notes:

- Before adjusting, make sure there is no gap between L6101 and L6102 and between L6103 and L6104. If there is a gap between them, bring them into contact with each other first, and then make adjustments.
- Make indicator adjustments in order of AM $\rightarrow$ FM.
- Adjustment sequence: L6104 $\rightarrow$ L6105 $\rightarrow$ L6102 $\rightarrow$ T6101

■ AM Tuner Section

- Set the mode selector to AM BAND.
- Connect the wiring as shown in Fig. 1-1.
- For NVXK, MYIXK, MYXK/EA, MYXK/EB and DD types (AXQ3112 and AXQ3214)

Step No.	Adjustment Title	AM SG (400Hz, 30% Mod.)		Reception Frequency Display	Adjustment Location	Specifications
		Frequency (kHz)	Level (dBμV/m)			
1	TUNED IND. Lighting Level	999 *1	47±2	999kHz *1	VR6202	Adjust so that the indicator of TUNED IND. starts to light up.

Notes:

- When DD type is used, set the AM frequency step to 10 kHz.
- *1: For the area using 10kHz step, frequencies should be 1000 kHz

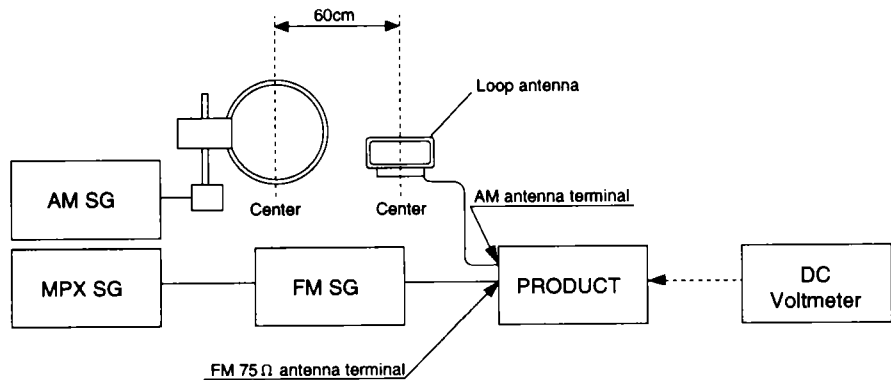
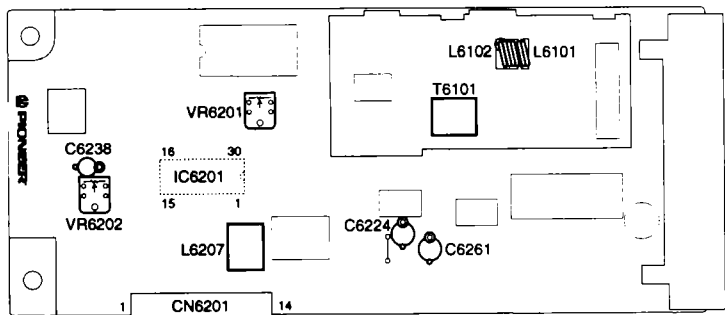


Fig. 1-1 AM and FM Adjustment Wiring Diagram

FM/AM TUNER MODULE (AXQ3112)



FM/AM TUNER MODULE (AXQ3214)

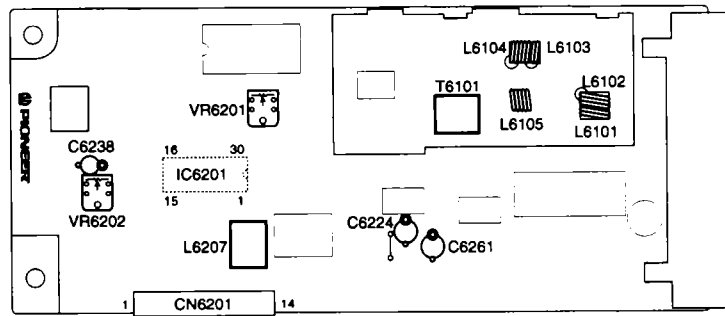


Fig. 1-2 Adjustment Points

5.2 CASSETTE DECK SECTION

● Adjustment points and test points are shown in Fig. 2-2 and Fig. 2-5.

■ Mechanical Adjustment

- Set the TAPE function.
- Test tape: STD-301 (3kHz, 30min).

1. Tape Speed Adjustment

No.	Mode	Test Tape	Adjusting Points	Measurement Points	Adjustment Procedure	Remarks
1	Deck I PLAY	STD-301 (Playback: 3kHz)	AF Assy VR4501	TAPE TEST POINT (Rch) (AF Assy)	Press the PLAY SW and adjust so that the reading becomes 3000Hz $\pm$ 20Hz. Confirm that wow & flutter level is below 0.2% (in the reverse direction, confirm that the reading is within 3000Hz $\pm$ 60Hz).	

■ Electrical Adjustment

Check the following before starting.

1. Confirm that the tape speed adjustment has been completed.
2. Clean the heads and demagnetize them using a head eraser.
3. Set the measurement level to 0 dBV = 1 Vrms.
4. Use the specified tape for adjustment. Use the labeled (A) side of the test tape.
STD-331E: For playback adjustment
STD-631or STD-632: Normal blank tape
5. Provide yourself with the following measuring devices:
 - AC millivoltmeter
 - Low-frequency oscillator
 - Attenuator
 - Oscilloscope
6. Adjust both right and left channels unless otherwise specified.
7. Turn the DOLBY NR switch off unless otherwise specified.
8. Warm up the unit for several minutes before adjustment. In particular, be sure to warm up the unit in the REC/PLAY mode for 3 to 5 minutes before starting recording/playback frequency characteristics adjustment.
9. Always follow the indicated adjustment order. Otherwise, a complete adjustment may not be achieved.

Playback Adjustment (Decks I and II)

1. Head Azimuth Adjustment
2. Playback Level Adjustment

Recording Adjustment (Deck II)

1. Bias Oscillation Frequency Adjustment
2. Recording Bias Adjustment
3. Recording Level Adjustment.
4. ALC Operation Check

* As the reference recording level is 250nwb/m for STD-331E, the recording level will be higher by 4 dB for STD-331B (160nwb/m). When adjusting, pay carefull attention to the type of tape used.

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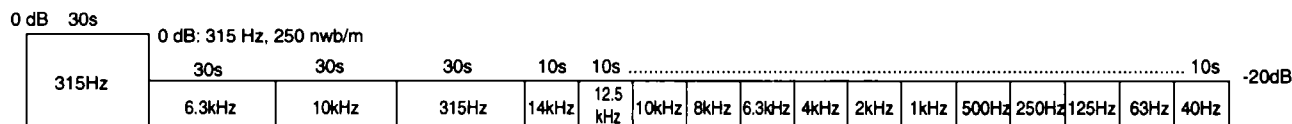


Fig. 2-1 STD-331E Test Tape

■ Playback Adjustment

1. Head Azimuth Adjustment

- This unit is equipped with auto tape selector.
- Do not switch between forward and reverse operation with the screwdriver inserted.

Step	Tape Selector (AUTO)	Mode	Input Signal/ Test Tape	Adjusting Points		Measurement Points	Adjustment Value	Remarks
1	NORMAL	PLAY	STD-331E test tape (Playback: 10kHz, - 20dB)	Deck I	Head azimuth adjustment screw (Fig. 2-2 and 2-3)	TAPE TEST POINT (L, Rch) (AF Assy)	Max. playback signal level	After adjustment, apply silicon bond to the head azimuth adjustment screw.
				Deck II				

2. Playback Level Adjustment

- Since this adjustment determines playback Dolby NR level, perform it carefully.

Step	Tape Selector (AUTO)	Mode	Input Signal/ Test Tape	Adjusting Points		Measurement Points	Adjustment Value	Remarks
1	NORMAL	PLAY	STD-331E test tape (Playback: 315Hz, 0dB)	Deck I	VR4201 (Lch) VR4202 (Rch)	TAPE TEST POINT (L, Rch) (AF Assy)	- 4.2 dBV	
				Deck II	VR4203 (Lch) VR4204 (Rch)			

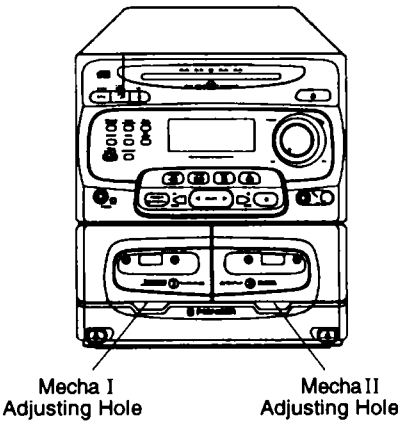
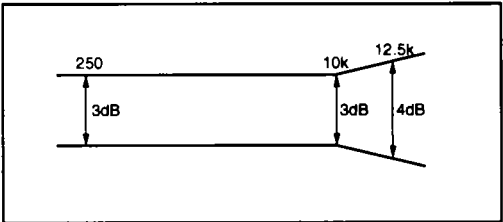


Fig. 2-2

PLAY BACK



RECORDING

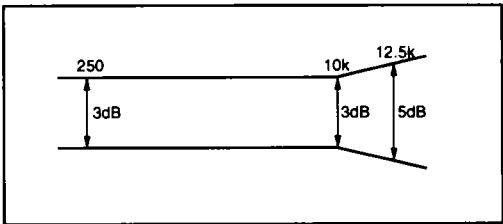


Fig. 2-4 Frequency Characteristics

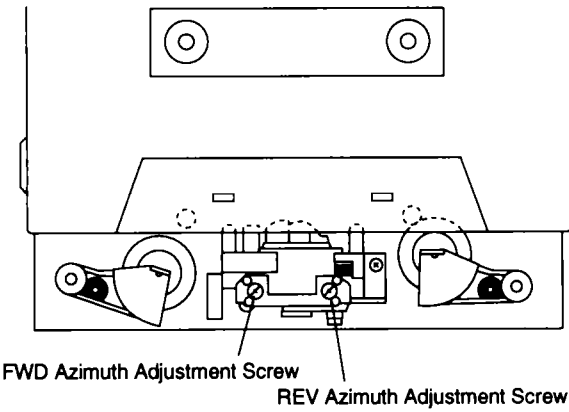


Fig. 2-3 Head Azimuth Adjustment

■ Recording Adjustment

1. Bias Oscillation Frequency Adjustment

Step	Tape Selector (AUTO)	Mode	Input Signal/Test Tape	Adjusting Points		Measurement Points	Adjustment Value	Remarks
1	NORMAL	REC	Load the STD-631 or STD-632 test tapes and set the recording mode.	Deck I	—	—	Oscillation frequency to be 105.0kHz $\pm$ 2kHz.	When the power is turned ON while the MONO button is depressed, the frequency will decrease 2 – 3 kHz.
				Deck II	L4351	Between ④ point in Fig. 2-5 and GND.		

2. Recording Bias Adjustment

- After the adjustment, caution should be exercised so as not to become under bias by checking the distortion rate.

Step	Tape Selector (AUTO)	Mode	Input Signal/Test Tape	Adjusting Points		Measurement Points	Adjustment Value	Remarks
1	NORMAL	REC	Input a 315Hz signal to the MD/CD II terminal and set the input selector to MD/CD II.	Deck I	—	TAPE TEST POINT (L, Rch) (AF Assy)	– 25.2 dBV	
				Deck II	Input signal level			
2	NORMAL	REC→PLAY	Load the STD-631 or STD-632 test tapes and record/playback the 315Hz and 10kHz signals. (see the Note below)	Deck I	—	TAPE TEST POINT (L, Rch) (AF Assy)		Repeat adjustment until playback level of the 10kHz signal is within 0 ± 0.5 dB from that of the 315Hz signal.
				Deck II	VR4351 (Lch) VR4352 (Rch)			

Note: Set the 10kHz input signal level to the same value as the 315Hz input signal level of step 1.

3. Recording Level Adjustment

Step	Tape Selector (AUTO)	Mode	Input Signal/Test Tape	Adjusting Points		Measurement Points	Adjustment Value	Remarks
1	NORMAL	REC	Input a 315Hz signal to the MD/CD II terminal and set the input selector to MD/CD II.	Deck I	Input signal level	TAPE TEST POINT (L, Rch) (AF Assy)	– 8.2 dBV	
				Deck II				
2	NORMAL	REC→PLAY	STD-631 or STD-632 test tape and record/playback the 315Hz signal.	Deck I	—	TAPE TEST POINT (L, Rch) (AF Assy)		Repeat recording, playback and adjustment until playback level of the 315Hz signal becomes –8.2dBV.
				Deck II	VR4301 (Lch) VR4302 (Rch)			

4. ALC Operation Check

Step	Tape Selector (AUTO)	Mode	Input Signal/Test Tape	Adjusting Points	Measurement Points	Adjustment Value	Remarks
1	NORMAL	REC / PLAY	Input a 315Hz signal to the MD/CDII terminal and set the input selector to MD/CD II.	Input signal level	TAPE TEST POINT (L, Rch) (AF Assy)	– 8.2 dBV	
2				Set to a level +10 dB above the input level at step 1.		–3.2±2.5 dBV	

AF ASSY

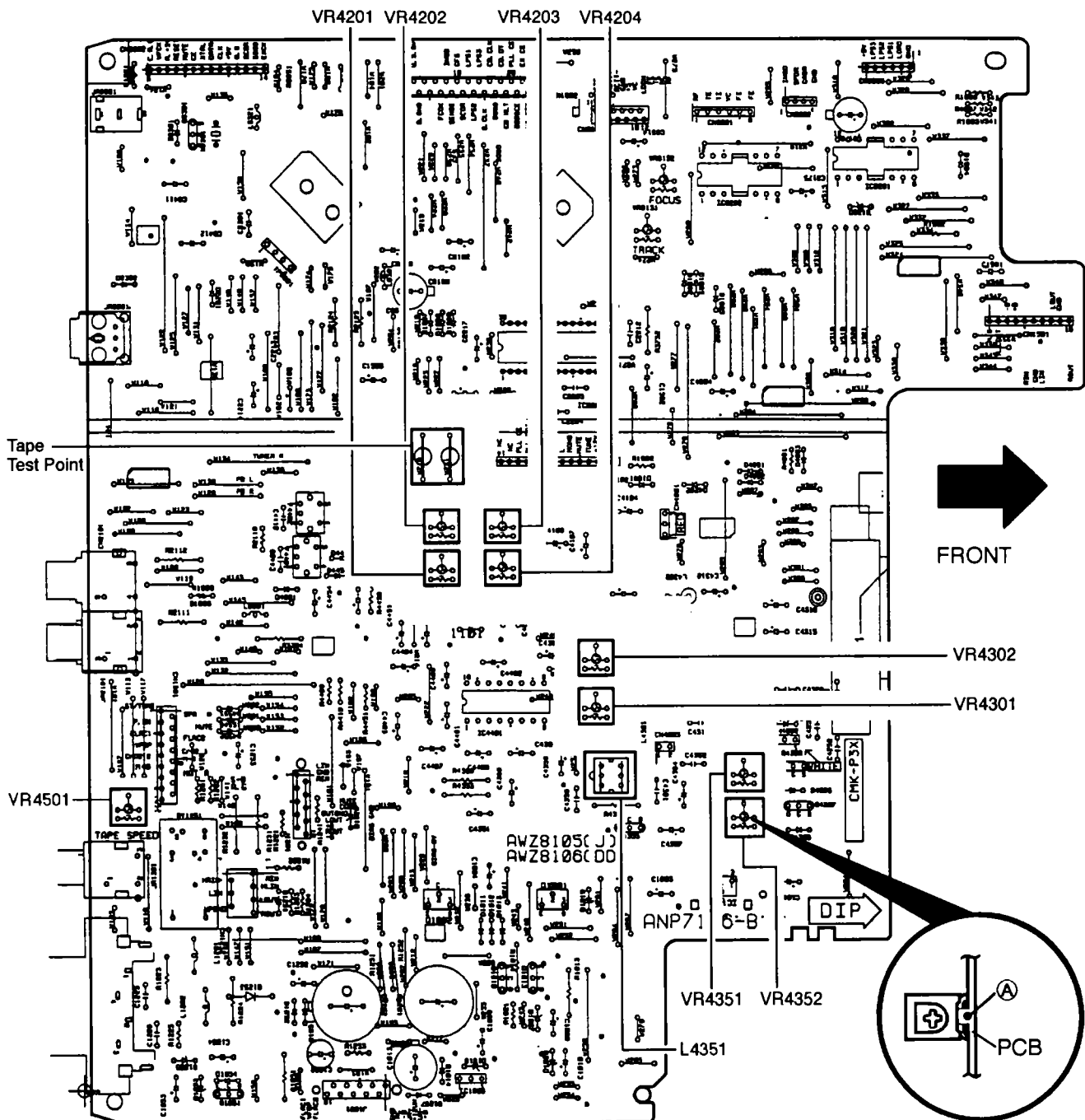
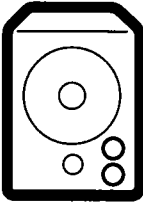
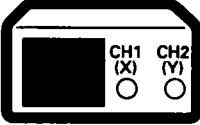
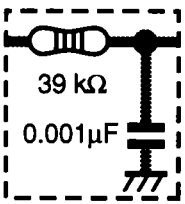


Fig. 2-5 Adjustment Points

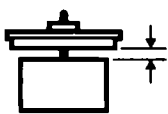
5.3 CD SECTION (CD部の調整)

1. PREPARATIONS (準備)

1.1 Jigs and Measuring Instruments (使用測定器/治工具類)

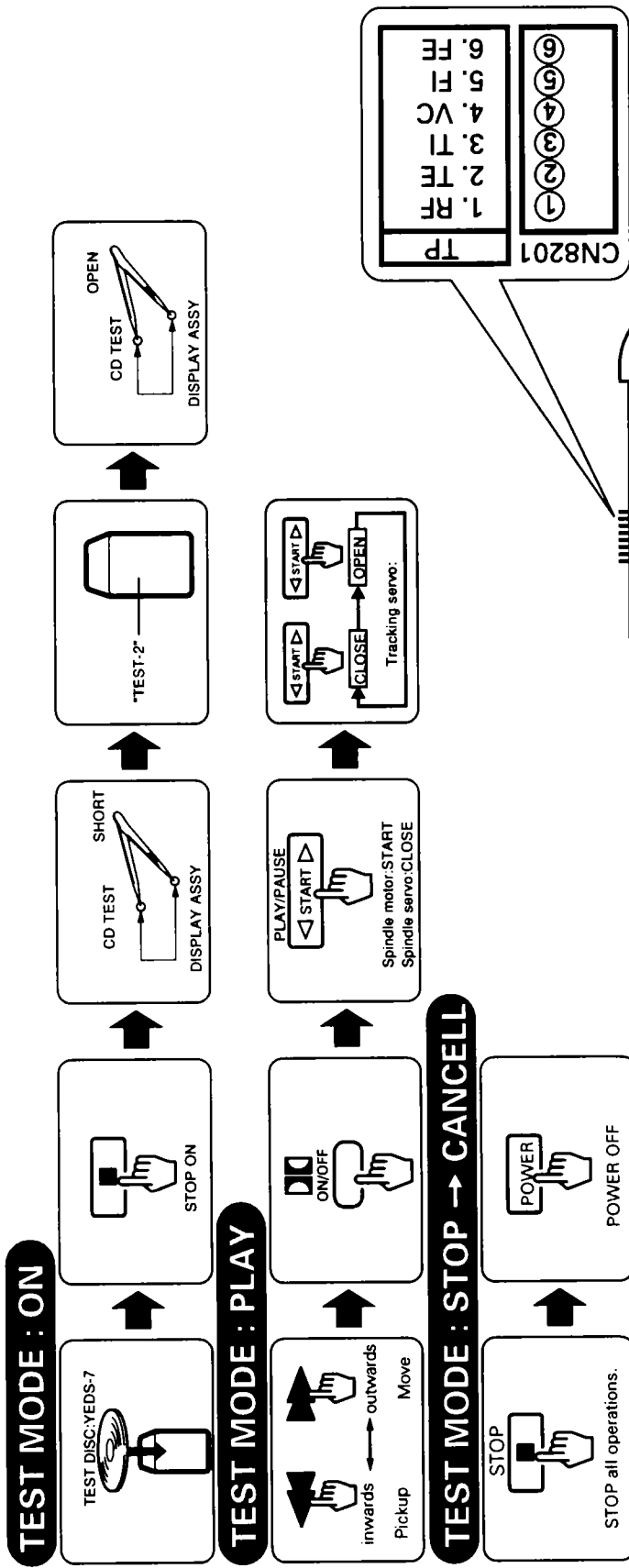
 8-cm DISC (With at least about 20 minutes recording) (20分程度信号の 入ったディスク)	 CD TEST DISC (YEDS-7)	 ⊖ Precise screwdriver	 ⊖ screwdriver (small)	 ⊕ screwdriver (medium)
 Ball point hexagon wrench (size: 1.5mm) GGK1002 ボールポイント付 六角ドラ イバー (対辺 1.5mm)	 ⊕ screwdriver (large)	 Low-frequency oscillator	 Dual-trace oscilloscope (10 : 1 probe)	 Low pass filter (39 kΩ + 0.001mF)

1.2 Necessary Adjustment Points (調整に必要な項目)

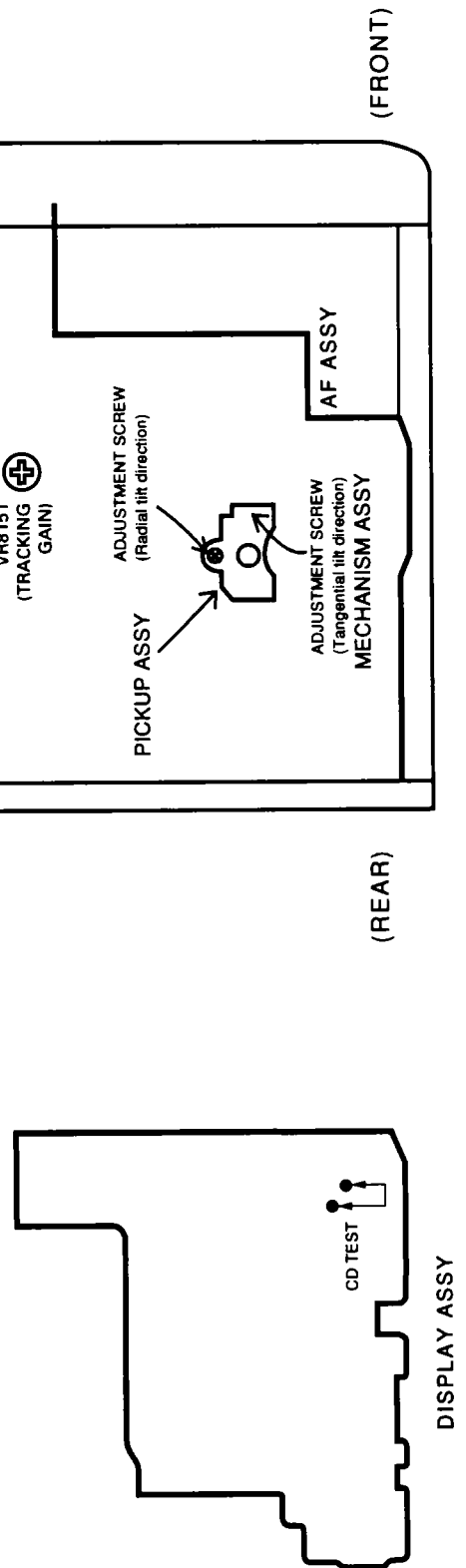
When (このような時)	Adjustment points
Exchange PICKUP (ピックアップを交換した時)	1.2.3.4.5.6. → Page 59～61
Exchange MAIN ASSY (メイン ASSYを交換した時)	1.2.3.4.5.6. → Page 59～61
Exchange SERVO MECH ASSY (サーボメカ ASSYを交換した時)	1.2.3.4.5.6. → Page 59～61
Exchange SPINDLE MOTOR (スピンドルモーターを交換した時)	 ADJ → Page 13

2. ADJUSTMENT (調整)

2.1 How to Start/Cancel/Test Mode (テストモードの設定/解除)



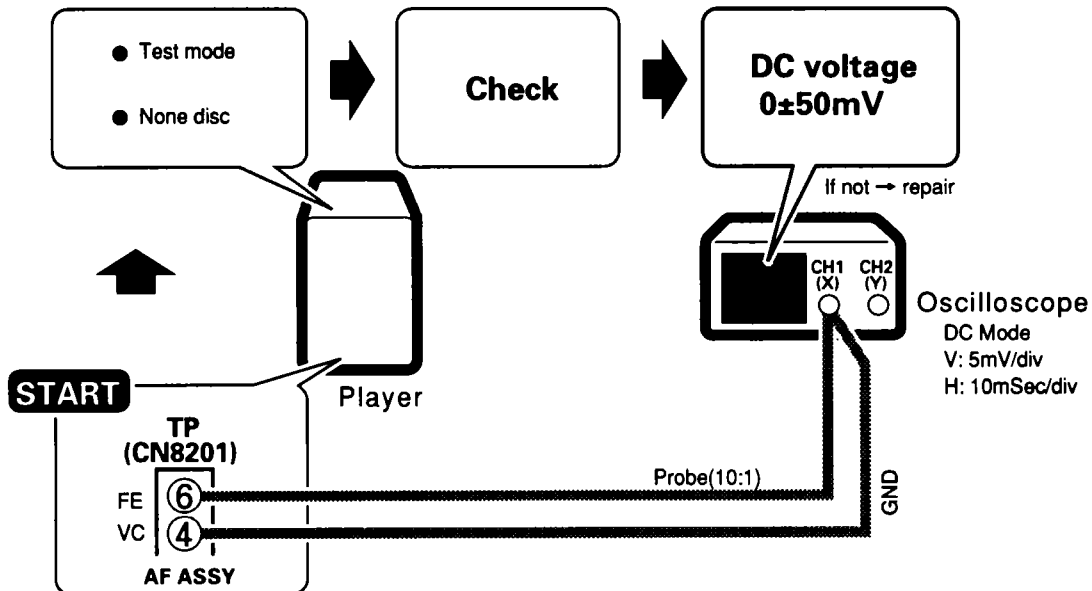
2.2 Adjustment Locations (テストポイントと調整用VRの位置)



2.3 Check and Adjustment (確認、調整)

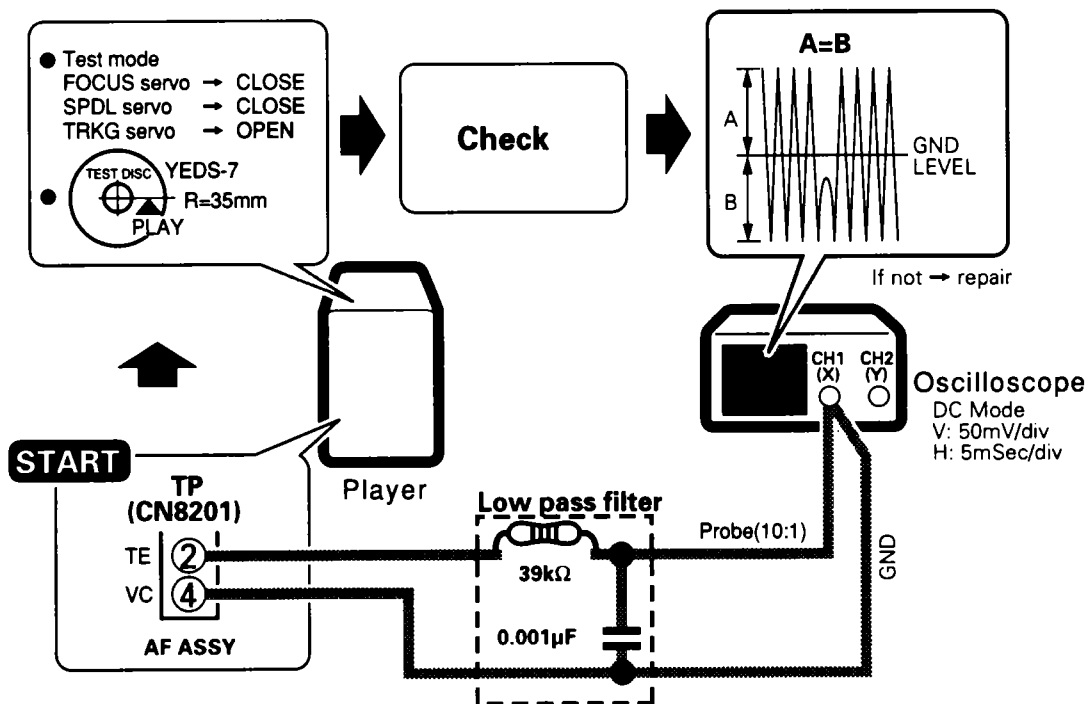
1. Focus Offset Check

(フォーカスオフセット確認)



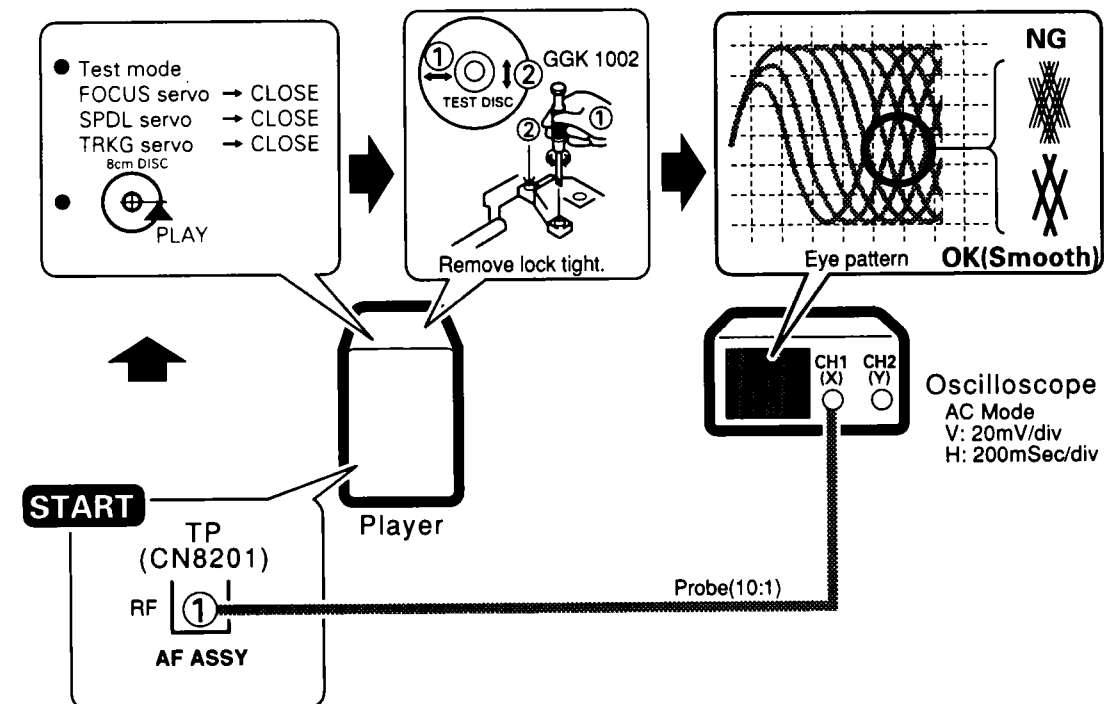
2. Tracking Error Balance Check

(トラッキングエラーバランス確認)



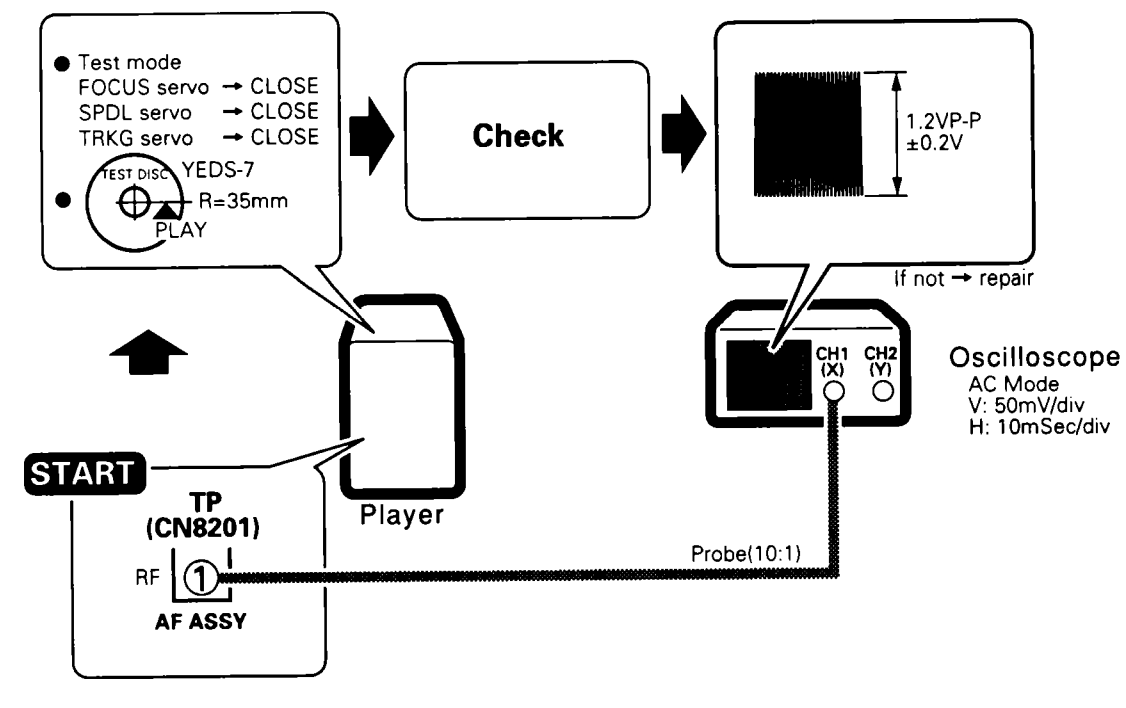
3. Pickup ①Radial / ②Tangential Direction Tilt Adjustment

(ピックアップ①ラジアル方向②タンジェンシャル方向の傾き調整)



4. RF Level Check

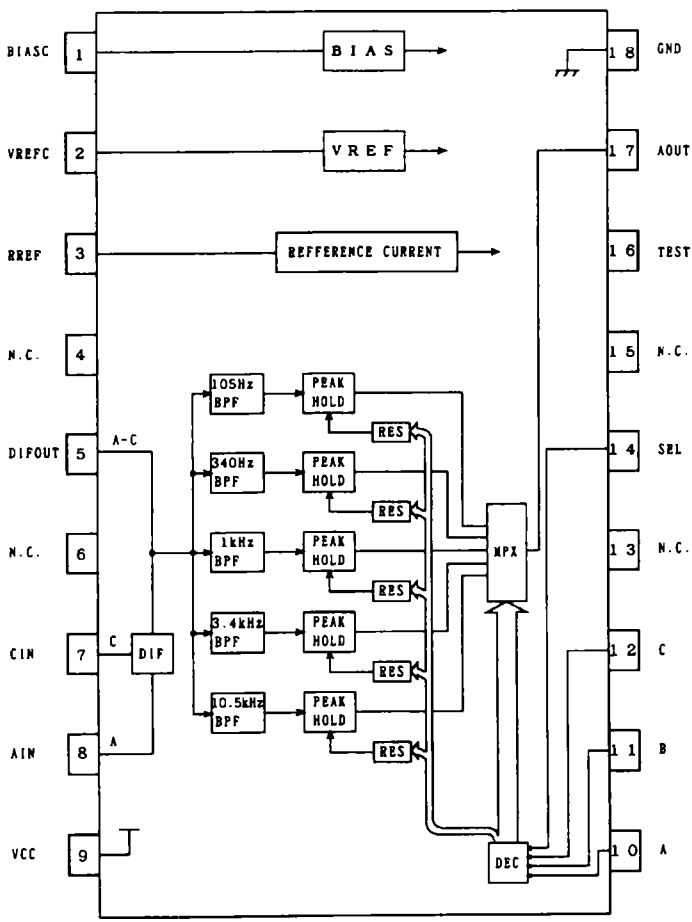
(RFレベル確認)



■ BA3835F (IC3701 : DISP. ASSY)

● Display Control Micro-computer

● Pin Assignment (Top view)



● Pin Function

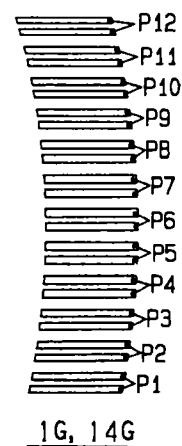
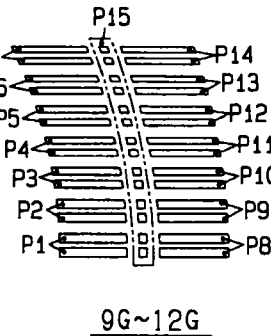
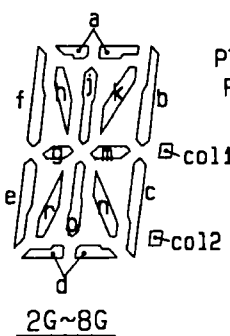
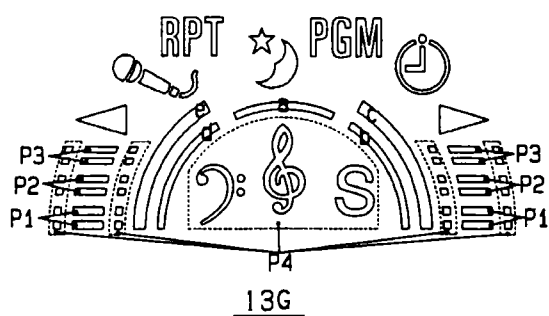
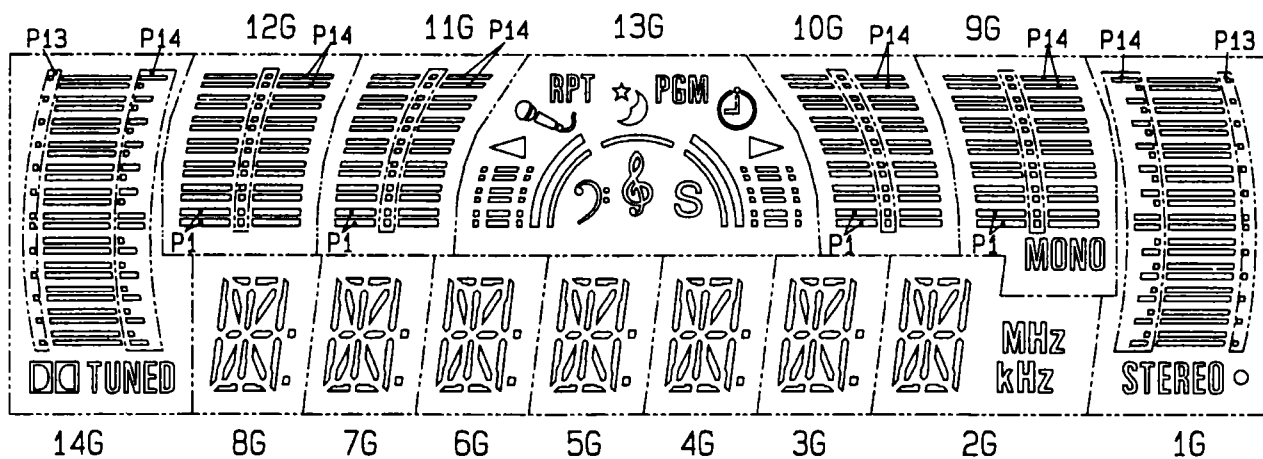
No	Pin Name	Description
1	BIASC	Decoupling capacitor connection terminal for linear part reference voltage
2	VREFC	Decoupling capacitor connection terminal for logic part reference voltage.
3	RREF	Reference resistor connection terminal for band pass filter to setting. fo adjustment is possible by this external resistor. (However, only entire band shift.)
4	N.C.	Not used
5	DIFOUT	Differential amplifier output terminal OPEN for normal use.
6	N.C.	Not used
7	CIN	Differential amplifier input terminal 2 Connected to the audio system GND via a capacitor.
8	AIN	Differential amplifier input terminal 1. Audio signal input via a capacitor.
9	VCC	Power source
10	A	Output selection control terminal (Refer to the output selection logic table.)
11	B	
12	C	
13	N.C.	Not used
14	SEL	Output selection control terminal (Refer to the output selection logic table.)
15	N.C.	Not used
16	TEST	Test signal input terminal Connected to GND for normal use.
17	AOUT	Multiplexer output terminal One of the five peak hold voltageband a is selected and output is executed. After the ewnd of selection, discharge to a level of peak value minus 3 db is executed by means of a reset pulse.
18	GND	Ground

7. FL INFORMATION

■ AAV7025 (V1901: DISP. ASSY)

● FL TUBE

● Grid Assignment

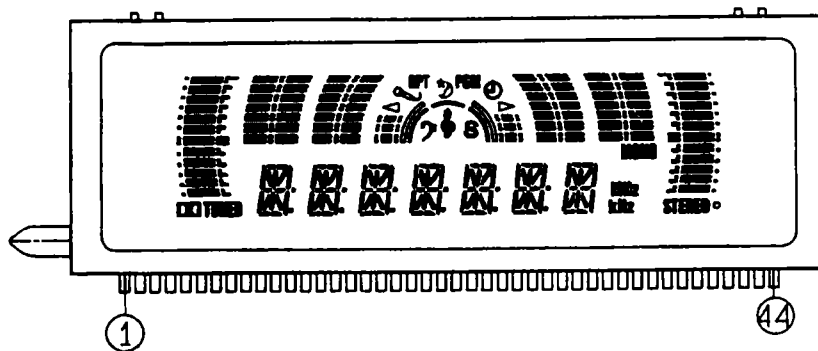


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● Anode Assignment

	14G	13G	12G	11G	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
S1	P1	P1	P1	P1	P1	P1	a	a	a	a	a	a	a	P1
S2	P2	P2	P2	P2	P2	P2	b	b	b	b	b	b	b	P2
S3	P3	P3	P3	P3	P3	P3	j	j	j	j	j	j	j	P3
S4	P4	P4	P4	P4	P4	P4	k	k	k	k	k	k	k	P4
S5	P5	RPT	P5	P5	P5	P5	h	h	h	h	h	h	h	P5
S6	P6	a	P6	P6	P6	P6	f	f	f	f	f	f	f	P6
S7	P7	d	P7	P7	P7	P7	m	m	m	m	m	m	m	P7
S8	P8	e	P8	P8	P8	P8	g	g	g	g	g	g	g	P8
S9	P9	b	P9	P9	P9	P9	c	c	c	c	c	c	c	P9
S10	P10	c	P10	P10	P10	P10	r	r	r	r	r	r	r	P10
S11	P11		P11	P11	P11	P11	n	n	n	n	n	n	n	P11
S12	P12		P12	P12	P12	P12	p	p	p	p	p	p	p	P12
S13	P13		P13	P13	P13	P13	e	e	e	e	e	e	e	P13
S14	P14	PGM	P14	P14	P14	P14	d	d	d	d	d	d	d	P14
S15			P15	P15	P15	P15	col 1	col 1	col 1	col 1	col 1	col 1	MHz	o
S16	TUNED					MONO	col 2	col 2	col 2	col 2	col 2	col 2	kHz	STEREO

● Pin Assignment



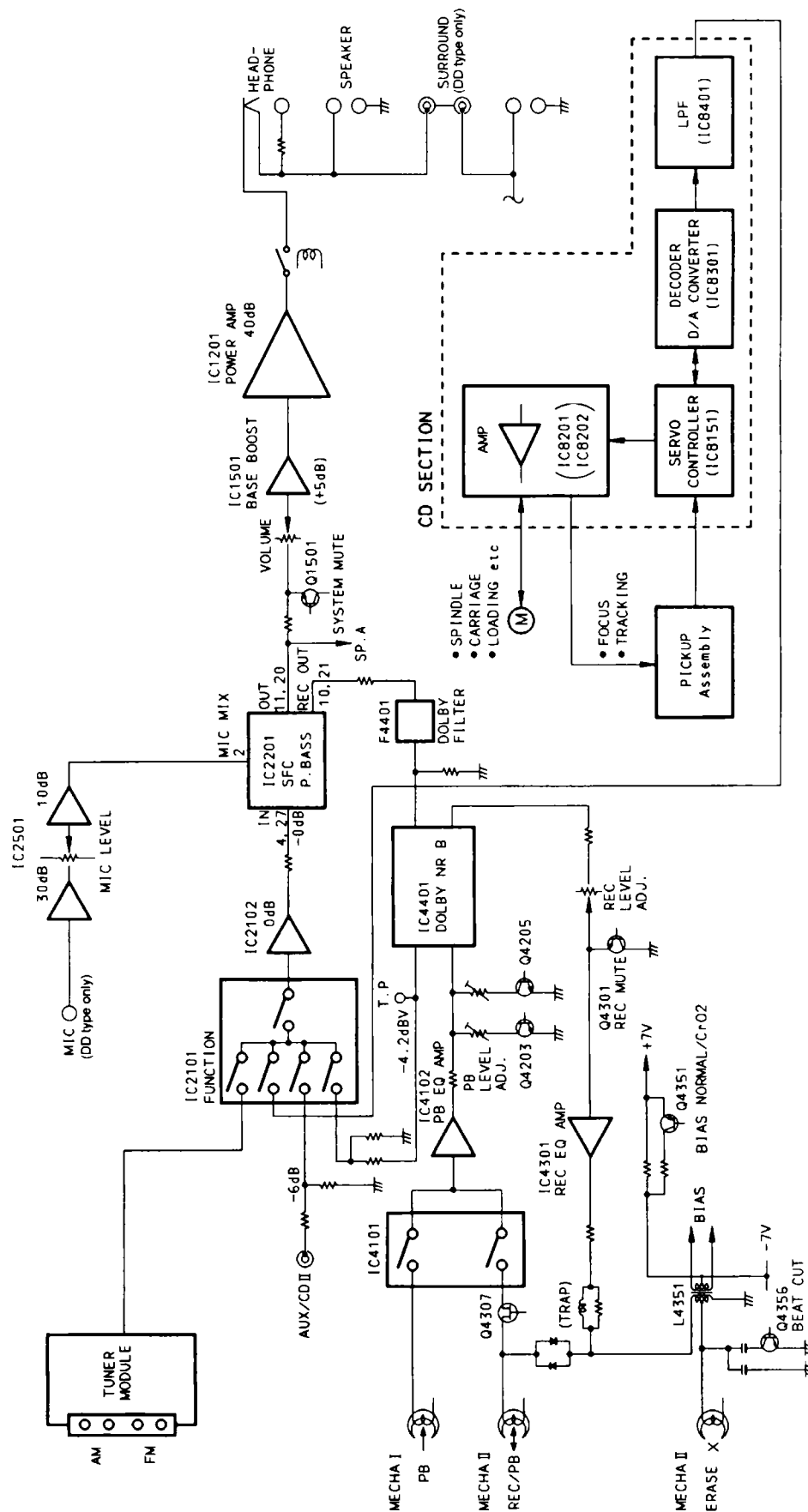
● Pin Connection

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Assignment	F1	F1	NP	G14	G13	G12	G11	G10	G9	NL	NL	NL	NL	NL	NL	NL	NL	G8	G7	G6	G5	G4

Pin No.	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
Assignment	G3	G2	G1	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	S14	S15	S16	NP	F2	F2

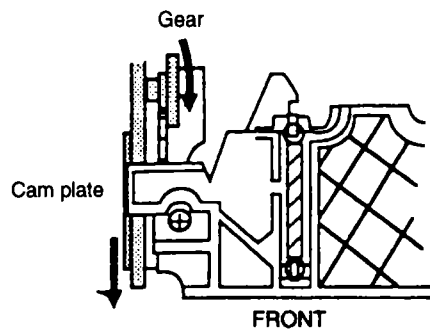
F1, F2: Filament G1~G14: Grid S1~S16: Anode NL: No Lead NP: No Pin

8. BLOCK DIAGRAM



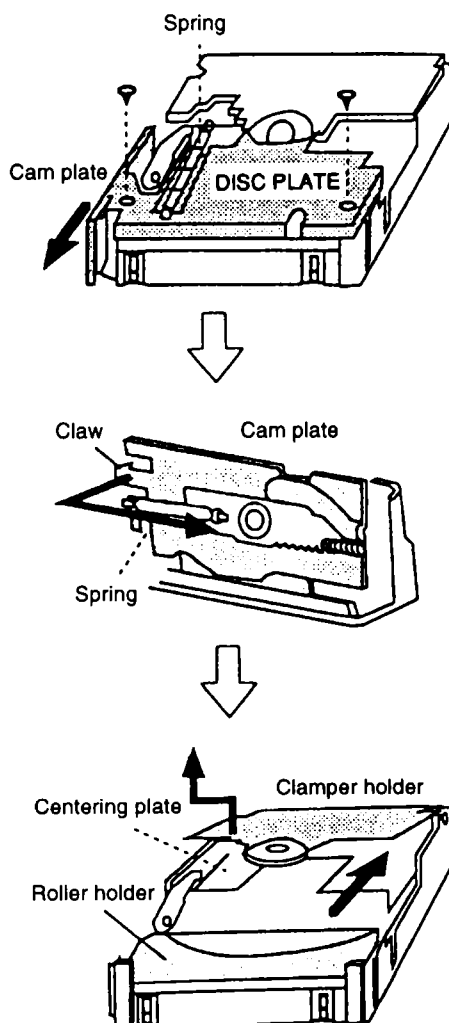
9. DISASSEMBLY

● CD DISC MANUAL REMOVAL METHOD



Turn the gear in arrow direction to the front, and move the cam plate to the front. When the gear is turned until the cam plate comes to the very front position (EJECT position), the CD disc will be pulled out.

● SERVOMECHANISM EXCHANGE METHOD AND MECHANISM ADJUSTMENT METHOD



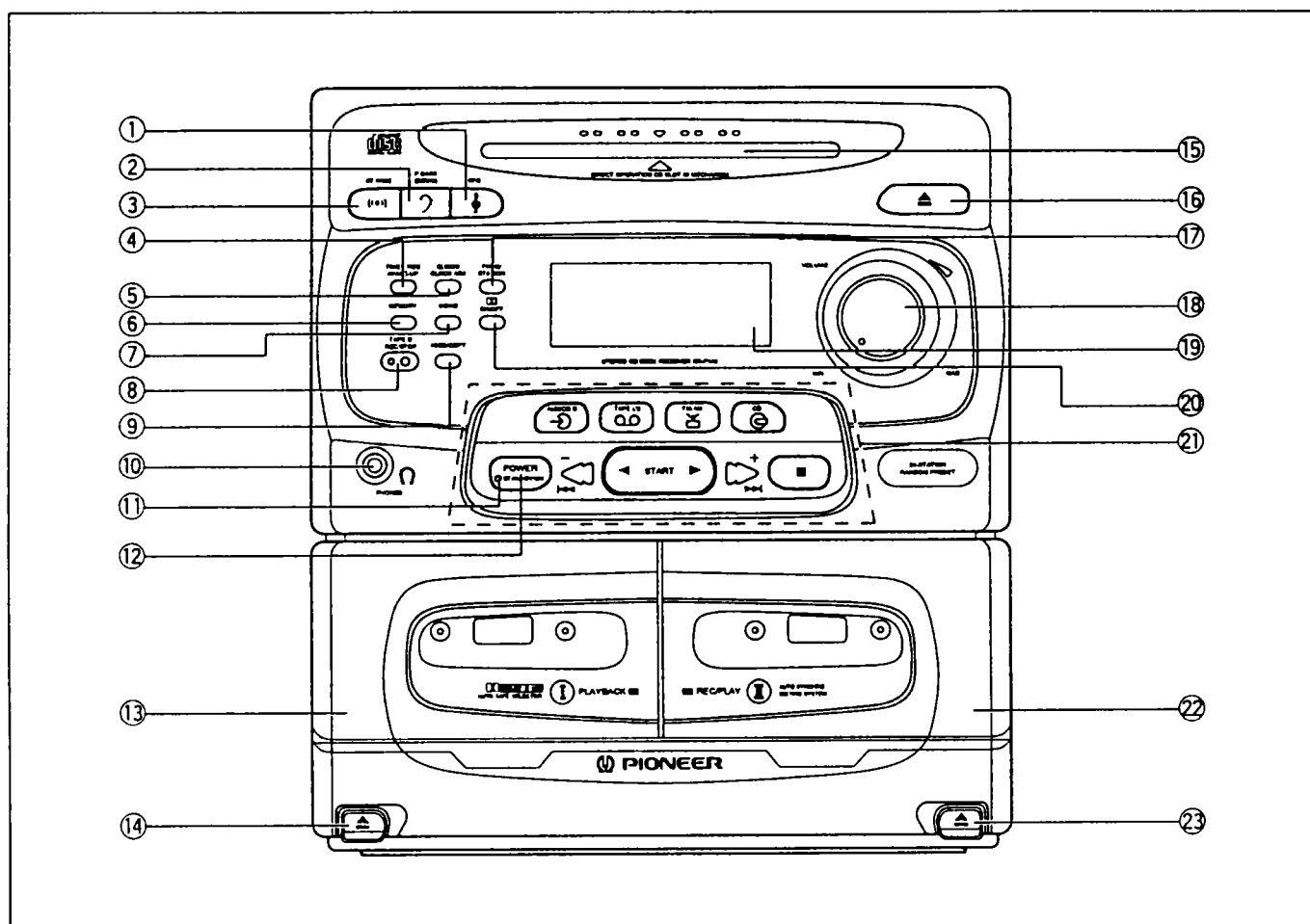
Remove the spring and the two screws, and then remove the disc plate. Move the cam plate to the very front position (EJECT position). (Refer to the CD disc manual removal method.)

Remove the spring.
Remove to the front while pulling the claw part of the cam plate to the outside.

Raise the clamber holder lightly, slide it in arrow direction, and remove it. When the centering plate is moved to the rear, the four screws fixing the servomechanism become visible. When these screws are removed, the servomechanism assembly can be removed.

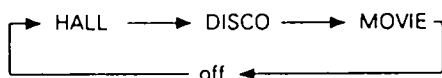
TAN and RAD adjustment are executed from above with the clamber holder and the roller holder removed and only the magnet clamber placed onto the CD disc.

10. PANEL FACILITIES



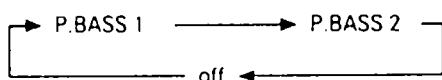
① SFC button

Each time this button is pressed, the mode changes in the following sequence:



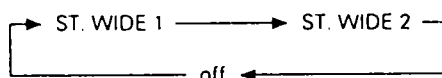
② P.BASS (DEMO) button

Each time this button is pressed, the mode changes in the following sequence:



③ ST. WIDE button

Each time this button is pressed, the mode changes in the following sequence:



④ TIMER REC/WAKE-UP button

⑤ CLOCK/CLOCK ADJ button

⑥ MEMORY button

⑦ MONO button

⑧ Rec/Rec stop button

⑨ ASES/COPY button

⑩ Headphones jack

⑪ STANDBY indicator

This is the switch for electric power.

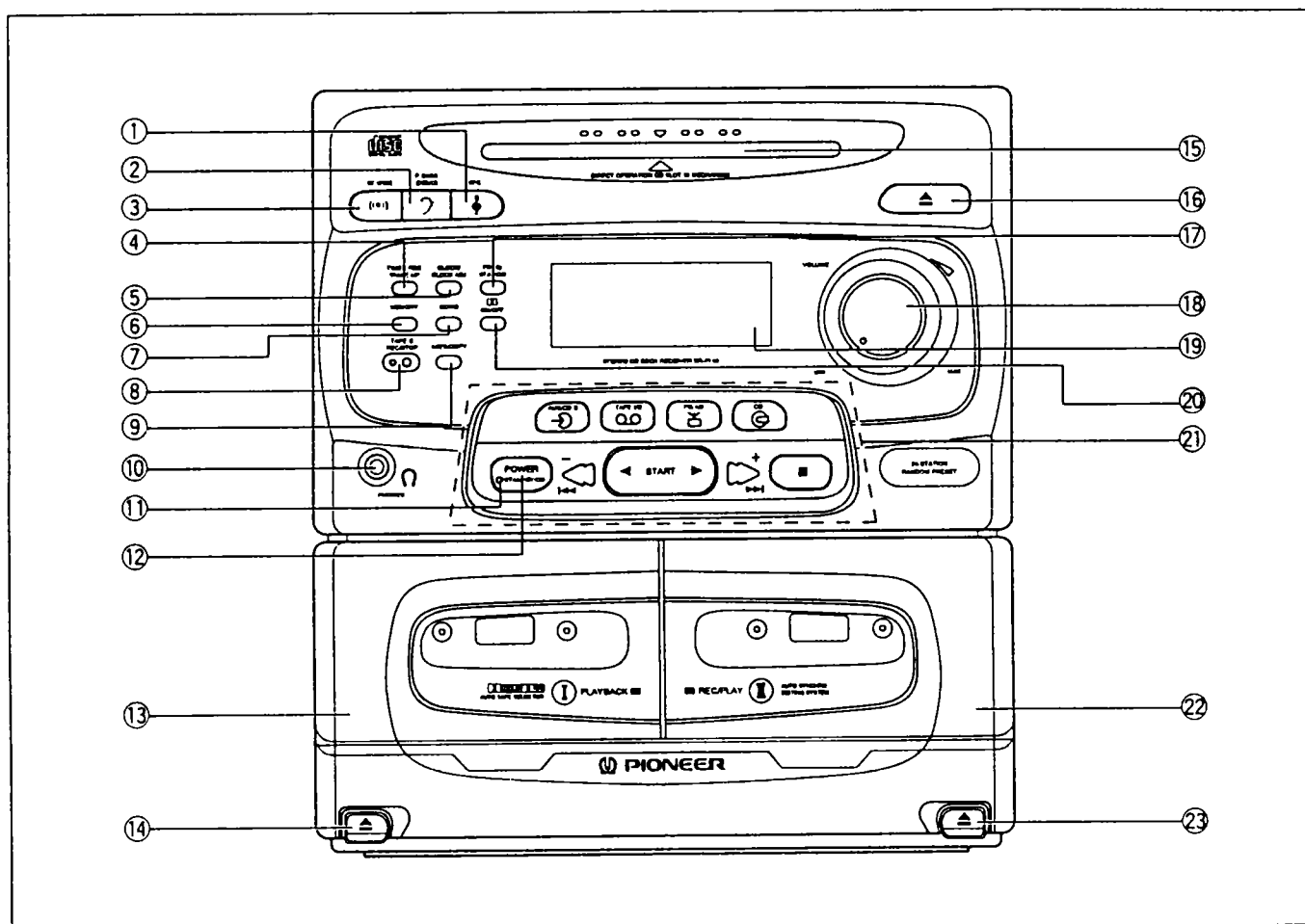
ON: When set to the ON position, power is supplied and the unit becomes operational.

STANDBY: When set to the STANDBY position, the main power flow is cut and the unit is no longer fully operational. A minute flow of power feeds the unit to maintain operation readiness. (The STANDBY indicator lights.)

⑫ POWER STANDBY/ON switch

⑬ TAPE I cassette door

⑭ TAPE I Eject button (▲)



⑮ Disc slot

⑯ CD Eject button (▲)

⑰ FREQ/STATION button

Each time this button is pressed, the mode changes between FREQUENCY and STATION.

⑱ Volume control (VOLUME)

⑲ Display

⑳ DOLBY* NR ON/OFF button

Each time this button is pressed, DOLBY NR system turns ON and OFF.

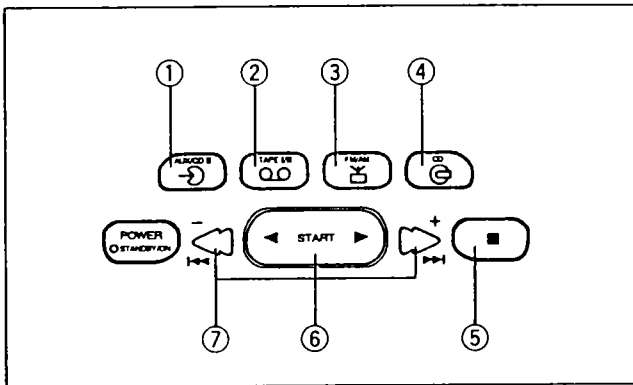
㉑ Function buttons

㉒ TAPE II cassette door

㉓ TAPE II Eject button (▲)

- Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
- "DOLBY" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

Function button section



- ① AUX/CD II function button and indicator
- ② TAPE (I/II) function button and indicator
- ③ Tuner (FM/AM) function button and indicator
- ④ CD function button and indicator
- ⑤ STOP button (■)
- ⑥ START button (◀▶)
- ⑦ buttons

● Roles of the common operation buttons (The roles of the buttons vary depending on the input functions as shown below.)

During CD input

START: Play/pause button

STOP: Stop button

: Fast forward/track search button

: Fast reverse/track search button

During cassette deck input

START: Play button/Tape transport direction

STOP: Stop button

: Fast forward button

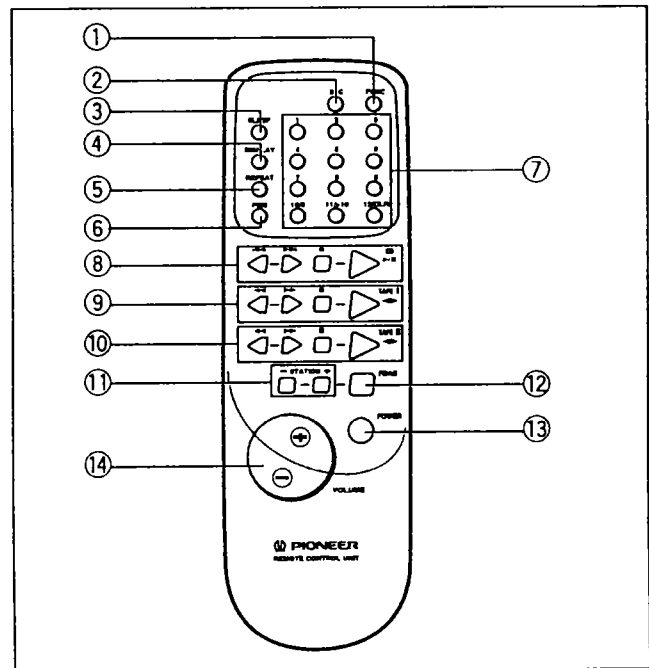
: Rewind button

During tuner operation

: Frequency & Station + (up) button

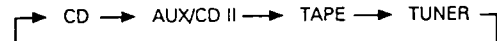
: Frequency & Station - (down) button

REMOTE CONTROL UNIT



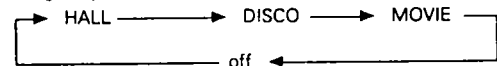
① Function button (FUNC)

Each time this button is pressed, the function changes in the following sequence:



② SFC mode button

Each time this button is pressed, the function changes in the following sequence:



③ SLEEP timer button

④ DISPLAY button

⑤ REPEAT button

⑥ PGM button

⑦ Number buttons

These buttons are used for selecting track numbers of a CD and for scanning preset stations.

⑧ CD operation buttons

(Track search ◀◀ ▶▶, Stop ■, Play/Pause ▶/II)

⑨ TAPE I operation buttons

(Fast ◀◀ ▶▶, Stop ■, Play ◀▶)

⑩ TAPE II operation buttons

(Fast ◀◀ ▶▶, Stop ■, Play ◀▶)

⑪ STATION - (down), + (up) buttons

Before operation, memorize broadcast stations with the STATION -, + buttons.

+ ... Stations change in order in the upward direction.

- ... Stations change in order in the downward direction.

⑫ FM/AM band button

⑬ POWER button

⑭ VOLUME + (up), - (down) button

Increase/decrease the sound volume of the unit.

11. SPECIFICATIONS

STEREO CD CASSETTE DECK RECEIVER

Amplifier section

<XR-P160>

Continuous Power Output (RMS) 35 W + 35 W
(1 kHz, T.H.D. 10 % 6 Ω)

Continuous Power Output (DIN) 27 W + 27 W
(1 kHz, T.H.D. 1 % 6 Ω)

- Above specifications are for when power supply is 230 V.

FM/AM Tuner section

FM tuner section

Frequency Range 87.5 MHz to 108 MHz

Antenna input 75 Ω unbalanced

AM tuner section

Frequency Range

With 9 kHz step 531 kHz to 1,602 kHz

Antenna Loop antenna

CD section

Type Compact disc digital audio system

Wow and Flutter Limit of measurement
(± 0.001 % W.PEAK) or less (EIAJ)

Cassette deck section

Systems 4 track, 2-channel stereo

Heads Recording/playback head x 1

Playback head x 1

Erasing head x 1

Motor DC servo motor x 1

Tape type TYPE I (Normal)/TYPE II (HIGH/CrO₂) tape

Miscellaneous

Power Requirements AC 230 V, 50/60 Hz (U.K. model)

AC 220 - 230 V, 50/60 Hz (European model)

Power Consumption 187 W

Dimensions 240 (W) x 270 (H) x 297 (D) mm

Weight (without package) 5.5 kg

Accessories

Operating instructions 1

Remote control unit 1

AAA/R03 dry cell batteries 2

FM T-type antenna 1

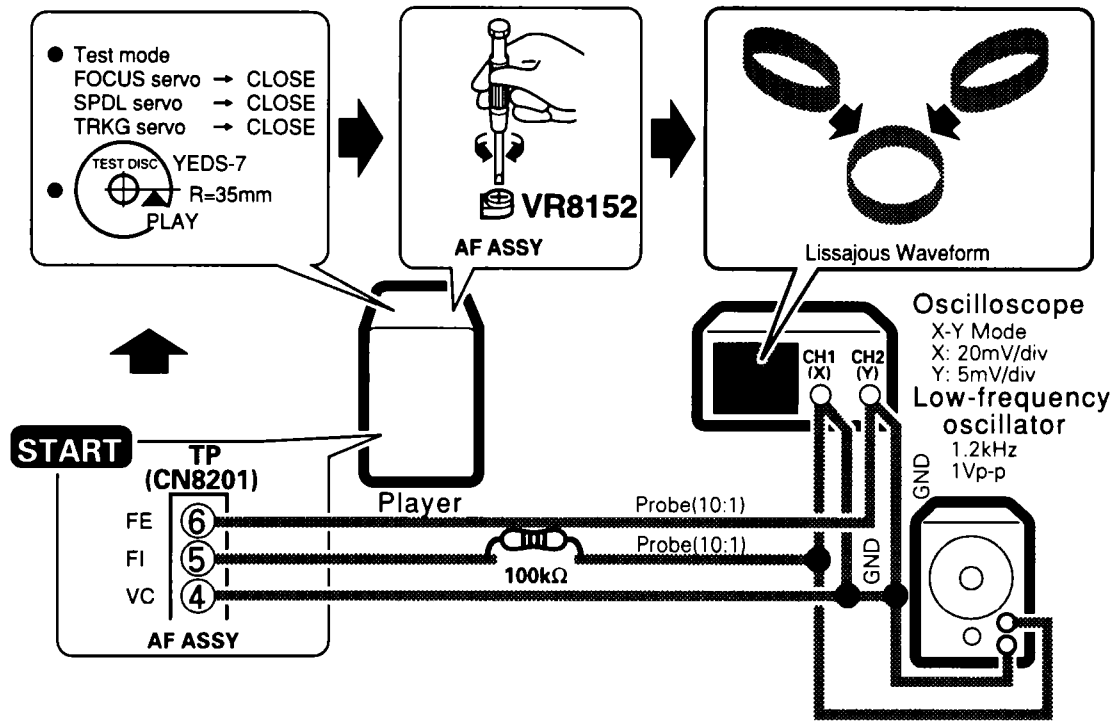
AM loop antenna 1

NOTE:

Specifications and design subject to possible modification without notice, due to improvement.

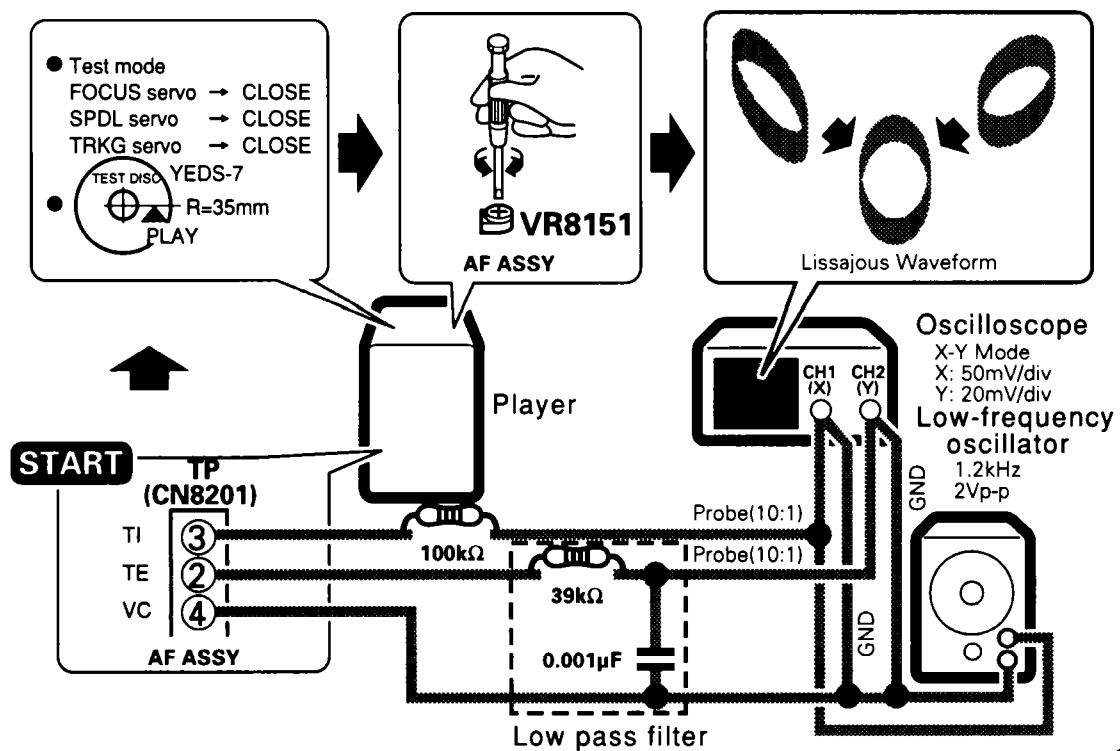
5. FOCUS SERVO LOOP GAIN ADJUSTMENT

(フォーカスサーボループゲイン確認)



6. TRACKING SERVO LOOP GAIN ADJUSTMENT

(トラッキングサーボループゲイン確認)



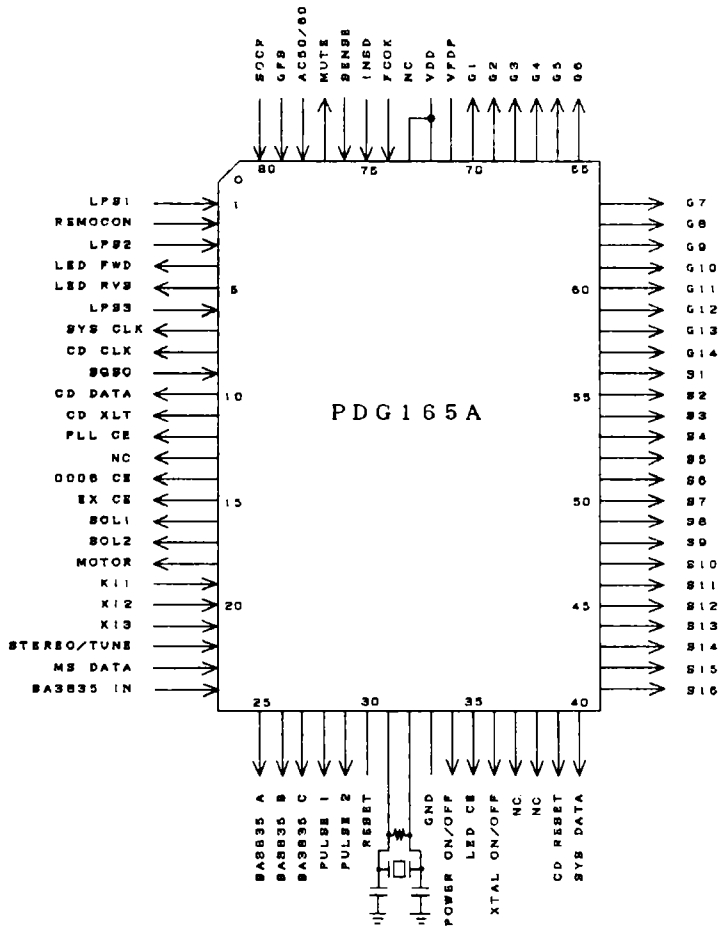
6. IC INFORMATION

● The information shown in the list is basic information and may not correspond exactly to that shown in the schematic diagrams.

■ PDG165A (IC1901 : DISP. ASSY)

● System Control Micro-computer

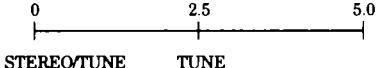
● Pin Assignment (Top view)



● Pin Function

No	Pin Name	I/O	Description
1	LPS1	I	DISC detection photo 1
2	REMOTE	I	Remote control signal input
3	LPS2	I	DISC detection photo 2
4	LED FWD ▷	O	LED control
5	LED RVS ◁		
6	LPS3	I	DISC clamp completion switch
7	SYS CLK	O	CLK output
8	CD CLK	O	CD decoder clock

No	Pin Name	I/O	Description
9	SQSO	I	DISC time information
10	CD DATA	O	CD decoder DATA output
11	CD XLT	O	CD decoder latch after transmission
12	PLL CE	O	PLL CE output
13	N.C.	–	Not used
14	0006CE	O	PM0006 CE output
15	EX CE	O	BU7094 CE output
16	SOL1	O	DECK mechanism I solenoid control

No	Pin Name	I/O	Description
17	SOL2	O	DECK mechanism II solenoid control
18	MOTOR	O	MOTOR ON/OFF
19	KI1	I	Key return input I
20	KI2	I	Key return input II
21	KI3	I	Key return input III
22	STEREO/ TUNE	I	
23	MS DATA	I	MUSIC search
24	BA3835 IN	I	BA3835 input
25	BA3835 A	I	BA3835 A
26	BA3835 B	I	BA3835 B
27	BA3835 C	I	BA3835 C
28	PULSE 1	I	DECK mechanism I operation detection
29	PULSE 2	I	DECK mechanism II operation detection
30	RESET	I	POWER ON RESET
31	EXTL	I	_____
32	XTL		
33	Vss		
34	Power/ON/OFF	O	BU4094 and power supply circuit and P.P muting control
35	LED CE	O	BU4094 (for LED) CE output
36	XTAL ON/OFF	O	CD XTAL ON/OFF
37	N.C.	-	_____
38			
39	CD RESET	O	CD and CDG RESET output
40	SYS DATA	O	PLL, PM0006, BU4094 data
41 56	S16 S1	O	FL segment output
57 70	G14 G1	O	FL grid output
71	VFDP	-	_____
72	VDD		
73	N.C.		

No	Pin Name	I/O	Description
74	FCOK	I	Decoder monitor H. FOCUS OK
75	INSD	I	Pickup home position recognition
76	SENCE	I	Decoder monitor
77	MUTE	O	System mute output
78	AC 50/60	I	_____
79	GFS	I	Decoder monitor, rotation speed frame check
80	SOCR	I	Decoder monitor, Q data interrupt signal